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The Origins of Maya States

Edited by

Loa P. Traxler and Robert J. Sharer

THE ORIGINS
of
MAYA STATES

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Dedicated in memory

of

Robert J. Sharer

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John E. Clark is Professor of Anthropology at Brigham Young University and Director of the New World Archaeological Foundation. Throughout his career, he has investigated the origins of hereditary inequality in Mesoamerica, as manifest in the Soconusco region of coastal Chiapas, Mexico. His publications include the co-edited books, *The Political Economy of Ancient Mesoamerica: Transformations During the Formative and Classic Periods* (University of New Mexico Press, 2007), *Archaeology, Art, and Ethnogenesis in Mesoamerican Prehistory: Papers in Honor of Gareth W. Lowe* (Papers of the New World Archaeological Foundation, No. 68, 2007), and *The Place of Stone Monuments in Mesoamerica's Preclassic Transition: Context, Use, and Meaning* (Dumbarton Oaks, 2009).

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Francisco Estrada-Belli is Research Assistant Professor of Archaeology at Boston University and Director of the Holmul Archaeological Project. His research focuses on the ritual practices, iconography, and political institution of rulership in the Maya lowlands. His recent publications include the book entitled, *The First Maya Civilization: Ritual and Power Before the Classic Period* (Routledge, 2011), and the co-authored work, "A Maya Palace at Holmul, Peten, Guatemala and the Teotihuacan 'Entrada': Evidence from Murals 7 and 9" (*Latin American Antiquity*, 2009).

David C. Grove is Professor Emeritus of Anthropology at the University of Illinois at Urbana-Champaign, and Courtesy Professor of Anthropology at the University of Florida. His archaeological research focuses on the Preclassic period of the central Mexican state of Morelos. His publications include *Chalcatzingo: Excavations on the Olmec Frontier* (Thames and Hudson, 1984), *San Pablo, Nexpa, and the Early Formative Archaeology of Morelos, Mexico* (Vanderbilt University Publications in Anthropology No. 12, 1974), and the edited volume *Ancient Chalcatzingo* (University of Texas Press, 1987).

Norman Hammond is Professor Emeritus of Archaeology at Boston University. He has directed numerous projects in Belize, including the regional survey of northern Belize and excavations at Lubaantun, Nohmul, Cuello, and La Milpa. His books include *Lubaantun: A Classic Maya Realm* (Peabody Museum of Archaeology and Ethnology, 1975), *Ancient Maya Civilization* (Rutgers University Press, 1982, 1994), *Nohmul: A Prehistoric Maya Community in Belize* (BAR 250, 1985), and *Cuello: An Early Maya Community in Belize* (Cambridge University Press, 1991). He is also editor of *Social Process in Maya Prehistory* (Academic Press, 1977) and *Maya Archaeology and Ethnohistory* (University of Texas Press, 1979, with G.R. Willey).

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Michael Love is Professor of Anthropology at California State University, Northridge, and Director of the La Blanca Archaeological Project in Guatemala. His research focuses on the Pacific coast region of Guatemala, investigating the early complex societies found there during the Preclassic period. He is author of *Early Complex Society in Pacific Guatemala: Settlements and Chronology of the Río Naranjo, Guatemala* (Papers of the New World Archaeological Foundation, No. 66, 2002), and co-editor of *The Southern Maya in the Late Preclassic: The Rise and Fall of an Early Civilization* (University Press of Colorado, 2011).

Simon Martin specializes in Maya epigraphic and iconographic research. He is Associate Curator and Keeper of Collections in the American Section of the University of Pennsylvania Museum of Archaeology and Anthropology in Philadelphia and a former Fellow in Pre-Columbian Studies at Dumbarton Oaks in Washington DC. He is currently conducting field research at Calakmul, Mexico. He is co-author of the recent books, *Chronicle of the Maya Kings and Queens* (Thames and Hudson, 2000; 2nd edition, 2008) and *Courtly Art of the Ancient Maya* (Thames and Hudson, 2004).

Astrid Runggaldier is Assistant Director at The Mesoamerica Center and Lecturer in the Department of Art and Art History at the University of Texas, Austin. Her 2009 doctoral thesis for the Department of Archaeology at Boston University, *Memory and Materiality in Monumental Architecture: Construction and Reuse of a Late Preclassic Maya Palace at San Bartolo, Guatemala*, focused on the built environment of the San Bartolo site core over time and explored the topic of Maya palaces as architectural manifestations of state-organized societies. Her research interests include Preclassic Maya civilization, state formation and the development of kingship, the foundations of urbanized society, and the social functions of architecture.

Robert J. Sharer (1940–2012) was Emeritus Shoemaker Professor of Anthropology at the University of Pennsylvania, and Emeritus Curator of the American Section at the University of Pennsylvania Museum of Archaeology and Anthropology in Philadelphia. Throughout his career he investigated the origins and development of ancient Maya states in El Salvador, Guatemala, and Honduras, and published several monographs reporting the results of his archaeological research. Among his many publications, he co-edited *Understanding Early Classic Copan* (University of Pennsylvania Museum, 2004), and authored the 6th edition of *The Ancient Maya* (Stanford University Press, 2006, with L. P. Traxler).

Loa P. Traxler is Director of Museum Studies and Assistant Professor of Anthropology at the University of New Mexico. Her archaeological research focuses on the architectural evolution of Classic Maya centers and the nature of sociopolitical organization in these societies. Her publications include reports on the excavations and research within the Acropolis of the Classic site of Copan, Honduras, "Redesigning Copan: Architecture of the Polity Center at the Time of the Dynastic Founding" in *Understanding Early Classic Copan* (University of Pennsylvania Museum, 2004), and *The Ancient Maya*, 6th edition (Stanford University Press, 2006) with senior author Robert J. Sharer.

Penn Museum International Research Conferences

Foreword

For more than a century, a core mission of the University of Pennsylvania Museum of Archaeology and Anthropology has been to foster research that leads to new understandings about human culture. For much of the 20th century, this research took the form of worldwide expeditions that brought back both raw data and artifacts whose analysis continues to shed light on early complex societies of the New and Old worlds. The civilizations of pharonic Egypt, Mesopotamia, Iran, Greece, Rome, Mexico, Peru, and Native Americans have been represented in galleries that display only the most remarkable of Penn Museum's vast holding of artifacts. These collections have long provided primary evidence of many distinct research programs engaging scholars from around the world.

As we moved into a new century, indeed a new millennium, Penn Museum sought to reinvigorate its commitment to research focused on questions of human societies. In 2005, working with then Williams Director Richard M. Leventhal, Michael J. Kowalski, Chairman of the Board of Overseers of Penn Museum, gave a generous gift to the Museum to seed a new program of high level conferences designed to engage themes central to the museum's core research mission. According to Leventhal's vision, generating new knowledge and frameworks for understanding requires more than raw data and collections. More than ever, it depends on collaboration among communities of scholars investigating problems using distinct lines of evidence and different modes of analysis. Recognizing the importance of collaborative and multidisciplinary endeavors in the social sciences, Penn Museum used the gift to launch a program of International Research Conferences that each brought together ten to fifteen scholars who had reached a critical point in the consideration of a shared problem.

During the three years until the spring of 2008, it was my privilege to identify, develop, run and now oversee the publication of eight such conferences. The dozen or so papers for each conference were submitted to all participants one month in advance of the meeting. The fact that the papers were circulated beforehand meant that no time was lost introducing new material to the group. Rather, after each paper was briefly summarized by its author, an intense and extended critique followed that allowed for sustained consideration of the contribution that both the data and the argument made to the larger questions. The discussions of individual papers were followed by a day discussing crosscutting issues and concluded with an overarching synthesis of ideas.

The Origins of Maya States is the edited proceedings of a conference of the same name held in the spring of 2007. It is the seventh and last of the conferences to see publication. As Series Editor, I am gratified that all but one of the conferences have been realized in print. The publication of the results of these conferences allows the new knowledge and understanding that they achieved to be shared broadly and to contribute to the uniquely human enterprise of self understanding.

HOLLY PITTMAN
Series Editor
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Preface *and* Acknowledgments

This volume stems directly from an International Conference on the origins of Maya states held at the University of Pennsylvania Museum in 2007. An organizing committee composed of Richard Leventhal, Jeremy Sabloff, Robert Sharer, and Loa Traxler planned the conference. The organizing committee identified potential participants and then sent letters of invitation to 14 potential conferees in the fall of 2006. Each invitee was assigned a topic relevant to the issue of the origins of Maya states by the planning committee, and asked to prepare and distribute a pre-conference paper on that topic at least one month prior to the conference.

Thirteen colleagues accepted the invitation, prepared pre-conference working papers, and attended the conference: Marcello Canuto, John Clark, Ann Cyphers, Francisco Estrada-Belli, David Grove, Norman Hammond, Richard Hansen, Eleanor King, Michael Love, Simon Martin, William Saturno, Robert Sharer, and Loa Traxler. As members of the planning committee, Richard Leventhal was able to participate in all the conference sessions, while Jerry Sabloff was able to attend about half of the sessions, and we are certainly grateful to both for their contributions. The conference sessions were also open to graduate students and other members of the Penn Museum community, and many of these individuals participated in the informal discussions that followed the formal conference sessions.

The conference was held over a period of four days with four morning and three afternoon sessions that generally followed a format patterned after the Advanced Seminars that have been held over many years at the School of Advanced Research in Santa Fe, NM. Prior to the conference each conferee was asked to prepare a review of another pre-conference paper. The first two days of the conference were devoted to discussions of each pre-conference paper, led by the designated reviewer. These discussions focused on the major issues, problems, and implications raised by each paper and often highlighted points of agreement and disagreement.

The remaining two days of the conference included a series of topical discussions chosen by a consensus of the participants. These discussions were also aimed at major issues, problems, and points of agreement or disagreement. On the final day the participants discussed plans for the published volume based on the conference, including the scope and content of each of the projected volume's chapters. Based on these discussions, conferees prepared their papers for publication and responded to reviews and editorial suggestions. Astrid Runggaldier joined Norman Hammond as co-author, and, ultimately, 13 authors and co-authors completed their manuscripts with final revisions in 2012. Some additions to the bibliography were made during the final stage of the publication process.

In preparing the chapters for this volume, the authors were asked to focus on the evidence for increasing complexity and the centralization of authority seen in the archaeological, iconographic, or historical record, and then discuss the trajectories of increasing complexity leading to the emergence of Maya states revealed by this evidence. Each author was also asked to consider several specific issues, where and when these were appropriate to his or her chapter. The first of these issues was to identify the major attributes or manifestations of increasing complexity. The second was to identify the most likely causes and consequences of this increasing complexity. The third was to identify the key problems or issues involved in better understanding the process of increasing complexity. And the final issue was to comment on the adequacy or inadequacy of extant models for the emergence of Maya states.

In closing, we want to acknowledge the combined efforts and contributions of many individuals without whom both the International Conference and the resulting volume would not have been possible. We are very grateful to all the conference participants and especially to those who contributed chapters to this volume. We especially want to thank the people at the Penn Museum who made the logistical arrangements and worked hard behind the scenes to ensure that the conference was a success: Holly Pittman (then Deputy Director for Academic Programs) and her assistant, Linda Meiberg, Margaret Spencer (Executive Assistant to the Director), Tena Thomason (Museum Special Events Coordinator) and her staff. We also want to thank Sarah Kurnick, Joanne Baron, and David McCormick who were of essential assistance to us in a multitude of ways in preparing this volume.

Loa Traxler
Robert Sharer

A FINAL NOTE

This volume represents the efforts and patience of many colleagues who contributed their time, thoughtful comments, and insightful work distilled in the chapters appearing here. As mentioned in the Preface and Acknowledgments, the Penn Museum and its professional staff supported the conference and publication process at every step, and I thank those who were especially important in that effort. Most recently, James Mathieu, Director of Publications, and Jennifer Quick, Senior Editor, have provided crucial support for the completion of the process. I also would like to thank my assistant, Maren Svare, at the University of New Mexico for her assistance with countless tasks related to the manuscript and its bibliography.

At a crucial juncture in the preparation of the volume, my colleague, spouse, and friend, Robert J. Sharer, fell ill and passed away in September of 2012. His passion for the subject of this volume, and for the prehistory of Mesoamerica and Maya civilization, carried him through his final days. He was excited by field research at several Preclassic period sites, which continues to add to our understanding of this pivotal era. With each new report another aspect of the developmental history of the Maya region comes into better focus. One hopes this volume contributes to the ongoing dialogue and encourages the pursuit and synthesis of new information for years to come.

Loa Traxler
Albuquerque
May 1, 2015

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1

The Origins of Maya States: Problems and Prospects

ROBERT J. SHARER AND LOA P. TRAXLER

In 1973 the Origins of Maya Civilization Advanced Seminar was held at the School of American Research (SAR), in Santa Fe. The basic goal of the SAR conference was to construct a model to explain the appearance of Maya civilization between ca. 1–250 CE (Adams and Culbert 1977:3). Much has transpired in the years since that Advanced Seminar, especially given the great increase in archaeological data bearing on the origins issue. The mammoth site of El Mirador was not even mentioned at the 1973 Advanced Seminar or in the subsequent publication of its results (Adams 1977). Back then it was held that Maya civilization coalesced during the Terminal Preclassic or Protoclassic period. Now we look back at least a thousand years earlier to the Middle Preclassic for the origins of Maya states. In 1973 little was known of Maya political organization or polities. When discussion turned to evolutionary concepts, the prevailing view often held that the Classic Maya represented a chiefdom-like society. In his summary of the SAR Seminar, however, Gordon Willey (1977:420) suggested that Tikal might have ruled over a centralized state during the Early Classic period, after establishing prestige-enhancing relationships with Teotihuacan.

THE 2007 PENN MUSEUM CONFERENCE

This volume is the result of an International Conference on the origins of Maya states held in Philadelphia at the University of Pennsylvania Museum on April 10–13, 2007. Prior to the conference each participant was asked to prepare an advance paper addressing a topic assigned by the conference organizers, Richard Leventhal, Jeremy Sabloff, Robert Sharer, and Loa Traxler. The scholars who prepared preliminary papers and attended this conference were (in alphabetical order), Marcello Canuto, John Clark, Ann Cyphers, Francisco Estrada-Belli, David Grove, Norman Hammond, Richard Hansen, Eleanor King, Michael Love, Simon Martin, William Saturno, Robert Sharer, and Loa Traxler. Once the participants submitted their preliminary papers, each was asked to review and critique a colleague's paper and lead the discussion of that paper during the conference. The discussions of the preliminary papers took place during the first two days of the conference. The exchanges of views stimulated by the preliminary papers prepared the way for the topical discussions that took place during the final two days of the conference.

By the end of the conference further discussions led to specific suggestions that guided the preparation of the chapters included in the present volume. All conference papers were revised to some extent in response to these suggestions, and one was substantially expanded. John Clark (Chapter 5) was asked to double his paper's length by adding synopses of archaeological data from early sites in the region west of the Maya area to provide a comparative perspective for understanding early Maya states and their external relationships. One non-conferee, Astrid Runggaldier, became Norman Hammond's co-author for Chapter 2 in this volume. On the other hand, one conferee, William Saturno, was unable to contribute a chapter to the published volume. To replace this chapter, envisioned to focus on early lowland Maya political organization, the authors of several chapters concerned with the development of complexity in the Maya lowlands were asked to include perspectives on political organization where appropriate to their topics. Richard Leventhal was also unable to contribute what had been planned as a summary chapter for this volume. In lieu of this chapter, we have expanded this introductory chapter to include a closing overview of current issues and a provisional model for the development of Preclassic Maya states.

THE SCOPE OF THE PRESENT VOLUME

The authors of this volume were asked to consider three themes in preparing their chapters. The first of these was the definition of the chronology and material signatures for the emergence of Maya states in the archaeological record. The second was to evaluate extant models for the emergence of Maya states, while the third was to consider refining these extant models, or replacing them with models that incorporate new archaeological data gathered over recent years.

In keeping with these themes, the present volume follows a chronology based on the generalized time periods used by most archaeologists working in the Maya area (Table 1.1). The conferees agreed that Maya states first developed during the Preclassic era as the predecessors of the political system that characterized lowland Maya society during the Classic period, ca. 250–850 CE. The chapters in the present volume deal in multiple ways with the material signatures in the Preclassic archaeological record for the emergence of Maya states. This initial chapter surveys the major research issues raised by current theoretical debates on the origins of Mesoamerican civilization and the organization of Maya states. We also provide a summary of the chapters in the present volume, an overview of the Preclassic origins of Maya states, and a provisional model to describe the developmental trajectory of Preclassic Maya states, which links them to the system of states that governed much of the Maya lowlands during the Classic period. In the next chapter Runggaldier and Hammond review the development of theoretical models of Maya states. To various degrees the chapters that follow also evaluate extant models for the emergence of Maya states, and most of these refine current frameworks, or in some cases, propose alternatives based on more recent archaeological data.

While the focus of the 1973 SAR Advanced Seminar was the origin of Maya civilization, the 2007 Penn Museum Conference and the present volume are concerned with the origins of Maya states. The plural is important, since the Pre-Columbian Maya were never unified into a single state, but rather were organized into a series of more or less autonomous *kingdoms* or *polities* (these two terms will be discussed further below). Maya states are often seen as exemplars of the pre-industrial or archaic state (Feinman and Marcus 1998), but it is important to note that this volume does not seek to define or explain *the state* as a specific political organization or system. Rather, both the conference and this volume are aimed at assessing the developments that led to the formation of multiple lowland Maya states.

A recent study of the evolution of 72 Maya polities concluded that Maya states originated in the Middle Preclassic characterized by punctuated phases of development, multiple cycles of expansion and collapse,

Table 1.1. Chronology: The Maya Preclassic and Early Classic Periods

EARLY PRECLASSIC (2000–1000 BCE): Origins of Complex Societies

MIDDLE PRECLASSIC (1000–400 BCE): Origins of States

900–600 BCE	La Blanca Mound 1, largest structure in Maya area
900–600 BCE	Earliest paired stelae and altars at Naranjo (Kaminaljuyu)
800–600 BCE	Earliest masonry architecture at Nakbe
500–400 BCE	Earliest irrigation canal at Kaminaljuyu

LATE PRECLASSIC (400 BCE–150 CE): Expansive States

400–200 BCE	Earliest carved monuments with texts (southern Maya and lowland areas)
400–100 BCE	Earliest preserved painted Maya texts (lowlands)
300 BCE–100 CE	Initial expansive states: apogee of Kaminaljuyu (highlands) and El Mirador (lowlands)
300 BCE–100 CE	El Mirador Tigre and Danta complexes, largest structures in Maya area
1–200 CE	Earliest monuments with Long Count dates in southern Maya area
ca. 100 CE	Founding of Tikal dynasty

TERMINAL PRECLASSIC (150–250 CE): Decline of Preclassic States

200–250 CE	Decline of Kaminaljuyu and southern Maya states
200–250 CE	Decline of El Mirador and other Late Preclassic centers in lowlands

EARLY CLASSIC (250–600 CE): Expansion of later Lowland States

292 CE	Tikal Stela 29, earliest Long Count date in lowlands
359 CE	Founding of Yaxchilan dynasty
378 CE	Arrival of new ruling faction at Tikal led by Siyaj K’ak’
426 CE	Founding of Copan dynasty

and weaker political stability as they became more complex through time (Cioffi-Revilla and Landman 1999). Perhaps the most important characteristic shared by all Maya states was their variability. Although the evidence indicates that the first Maya states appeared during the Middle Preclassic period, not all Maya states developed at the same time; in fact new Maya states continued to emerge throughout the Pre-Columbian era. The life spans of Maya states varied as well, some lasting only a few centuries, others enduring for over a millennium. Not all Maya states were equal; some were far larger and more powerful than others. Not all Maya states were organized in the same ways.

The explanations for the origin of Maya civilization available to the participants at the 1973 Advanced Seminar were labeled a "theoretical embarrassment" in the 1977 volume, since "no single explanation for the rise of Maya civilization has gained consensus approval" (Adams and Culbert 1977:17). Certainly, there are more theoretical frameworks to consult today than there were in 1973, yet a consensus among today's scholars remains elusive. While past scholars were often concerned with single explanations, today most Maya scholars would agree that explanations lie in identifying multiple interacting factors. In his summary chapter in the 1977 volume, Gordon Willey defined several such factors. His model was keyed to the chronological subdivisions of the Pre-Columbian era in which population growth in the Maya lowlands laid the foundation for the development of elite culture through competition and rivalry, stimulated by external contacts and trade that produced further competition and growth, which continued until the so-called collapse at the end of the Classic period (Willey 1977:418–21).

An examination of the spatial and temporal contexts for the Preclassic origins of Maya states confronts two fundamental issues that Mesoamerican and Maya scholars continue to be debate. The first of these arises from the fact that the developments in the Maya area during the Preclassic era were inextricably involved with other societies in Mesoamerica. This implies that any study of the origins of Maya states must consider the larger picture of the developmental processes within Mesoamerica during this same time frame. This wider focus on developments across Preclassic Mesoamerica also means we must confront a familiar and sometimes contentious debate involving two opposing views on the origins of Mesoamerican civilization and states. The second major issue involves a debate over how to best comprehend the structure and functions of Maya states. We will discuss both issues in the following section of this chapter.

MODELS FOR THE ORIGINS OF MESOAMERICAN CIVILIZATION

Scholars continue to vigorously debate the merits of two competing models that seek to explain the origins of sociopolitical complexity and the other attributes of "civilization" within Mesoamerica. In this context, state systems are one of the consequences of this developmental process, and these models inevitably frame any consideration of the origins of Maya states. One model holds that Maya states, along with other Mesoamerican states, were descended from earlier Olmec prototypes. This so-called *cultura madre* (Mother Culture) model is based on a unilinear evolutionary pathway and assumes all Mesoamerican civilization derives from a single origin. The competing co-evolutionary model implies that Maya states developed as part of a mosaic of interacting and evolving social systems based on multiple evolutionary trajectories. In other words, that all Mesoamerican states had variable and multiple origins.

We feel it is important to consider the archaeological foundations that underlie both models in the hope that these can be of value in assessing the evidence for the origins of Maya states. It is equally important to clearly reiterate that scientifically documented archaeological data are crucial to any consideration of these issues, given their ability to provide far more reliable information than undocumented artifacts. A number of chapters in this volume highlight well-documented archaeological data that provide the essential baselines for establishing chronological and developmental sequences, and discerning relationships between sites and regions, all of which are essential for inferring the processes responsible for the origins and development of Maya states.

The Importance of Context

The problems with using objects from looted or other undocumented sources as evidence for understanding the past obviously result from their lack of archaeological context. Such objects are devoid of documentation about their provenience (where they were found) and their associations (what they were found with). Without knowing the provenience and associations of an artifact, it is difficult or impossible to understand its meaning, purpose, and uses within its original cultural setting. In addition, such objects often cannot be dated with the same degree of accuracy as most scientifically recovered and documented artifacts. A further difficulty arises when unprovenienced objects are in great demand on the art market, since their high value promotes the production of modern fakes. As a result undetected forgeries become "evidence" for reconstructions of the past.

Of course in many cases some information can be salvaged from unprovenienced materials, as long as they are not fakes. Stylistic dating is possible for some of these objects, even though such determinations are often educated guesses at best. Pottery can be tested by thermoluminescence to determine when it was fired or last heated to the Curie point, which usually distinguishes ancient from modern production. Instrumental Neutron Activation Analysis (INAA) can often identify where pottery was manufactured. Yet the original provenience, associations, and overall cultural context always remain unknown. While most objects inscribed with texts date to the Classic period, there are some Preclassic artifacts with inscriptions. In such cases decipherment of texts found on unprovenienced artifacts may provide information about their functions, perhaps even an owner's name or title, but again not their original provenience, associations, or context.

Obviously, therefore, the distinction between provenienced and unprovenienced materials translates into important differences in the reliability of information about the past. Since the present volume is primarily concerned with the Preclassic period, the contrast between provenienced and unprovenienced material is especially critical, given that our knowledge of this era is almost totally reliant on archaeological data (in contrast to the far richer sources of historical data available for the Maya Classic period). Because of these factors the participants in the Penn Museum Conference and this volume were asked to rely as much as possible upon provenienced archaeological data and to identify any evidence used in their discussions that was derived from unprovenienced sources.

It is also important to keep in mind that inferences about developmental relationships are usually based on similarities observed in the archaeological record. These similarities may involve artifacts, motifs, architecture, settlement patterns, and other forms of archaeological data. Similarity between two forms from separate archaeological contexts can either signify a relationship, or be the result of coincidence. The potential relationship represented by two similar forms cannot be directly observed; this information must be inferred. Two inferred relationships are possible—two similar forms may be descended from a single ancestral prototype, or one similar form gave rise to the other. Distinguishing between these alternatives depends on the relative age of the forms being assessed—whether two similar forms date to the same or different periods. Yet, given the time spans produced by most archaeological dating methods, it is often difficult to conclusively demonstrate the contemporaneity or non-contemporaneity of two similar forms. This means that the inferred temporal relationship between two similar forms is often based on supplemental evidence or, in many cases, pure supposition.

Both the cultura madre and co-evolutionary models rely on posited relationships signified by similarities observed in the archaeological record. In the case of the cultura madre model, similarities are understood to reflect the outward flow of forms and ideas from the Gulf coast Olmec heartland that transformed the Maya and other Mesoamerican societies. Support for this model comes from observed similarities of form used to posit connections between Olmec and non-Olmec sites or regions. These similarities lead to assumptions that certain forms arose earlier in the Olmec heartland, and that similar forms in external regions were later in time and derived from Olmec prototypes. In other words, similarities between forms found in different regions are assumed to be evidence for the diffusion of Olmec civilization throughout Mesoamerica. Yet it is clear that the expectations of the cultura madre model often influence or determine the identity of the originator and the recipient in the relationship. For example, even though similar forms may not be accurately dated, or come from unprovenienced sources, it is usually assumed that the example from an Olmec site is older and thus is the prototype for similar forms found outside the Olmec heartland. Less specific connections are also used to support the cultura madre model. Gulf coast origins for unprovenienced objects are often assumed if an object is rendered in "Olmec style" or decorated by an "Olmec motif." Thus such assumptions become "evidence" even without support from documented archaeological contexts.

Seeking Truth in Labeling

Suppositions of this sort are a consequence of the history of archaeological discovery in Mesoamerica, as John Clark points out in this volume

(Chapter 5). As in many areas of the world, distinctive artifacts and styles often carry labels given at the time of their discovery. In the early days of archaeology scholars were often more concerned with the origins than the meaning of artifacts (Sabloff and Lamberg-Karlovsky 1975). In Mesoamerica the term "Olmec" was initially applied to a variety of unprovenienced artifacts that exhibited an art style distinct from the previously known styles of central Mexico and the Maya area. Later, in the mid 20th century, archaeologists began working at sites in Mexico's Gulf coast lowlands, where monumental sculptures exhibiting attributes of this distinct style were discovered. As a result, the Gulf coast region was identified as the "homeland" of Olmec civilization. Thereafter, finds of sculpture, pottery, figurines, or other examples exhibiting this style from anywhere beyond the Gulf coast have been assumed to represent "Olmec" influence (Grove 1989a). Although dating is often problematic, "Olmec style" objects from outside the "homeland" are often judged to be either contemporary with Olmec civilization or "derived" from the Olmec. Therefore, some objects are assumed to reflect Olmec origins for developments in areas outside the Gulf coast or seen as evidence for Olmec "presence" in these external regions (Sharer 1982).

The consequences of such assumptions are far-reaching, for they often result in Olmec origins and influences being privileged in interpretations over possible influence from other areas of Mesoamerica simply because of the arbitrary labeling of certain objects as "Olmec." Objects found outside of the Gulf coast region but labeled Olmec because of their style, even when well documented by archaeological research (Grove 1974a, 1989a), are frequently assumed to have their origins on the Gulf coast. In an attempt to avoid these implications of the "Olmec style" label, scholars have proposed adopting a neutral label, such as "Middle Formative (Preclassic) Style" (Grove 1997). Yet as is often the case, custom and precedent have prevailed, and the "Olmec style" label appears to be here to stay.

In this volume Clark mentions this problem in conjunction with similar labels associated with two important Preclassic sites, La Venta and Izapa. In the case of "La Venta style," Clark states that referring to monuments by this label "colors their interpretation in favor of La Venta's presumed dominance" (Chapter 5). The same could be said of labeling any artifact as "Olmec style," including carved monuments, jade celts, and murals, since the Olmec label also colors their interpretation. As for the use of the "Izapa style" label, Clark concludes that "it is not certain that the Izapa style began at Izapa, was developed at Izapa, or that the promulgation of the Izapa style throughout eastern Mesoamerica had anything to do with elites living at Izapa" (Chapter 5), and thereby provides us with a succinct statement of the significance of the labeling problem.

The evidence for the spatial and temporal distribution of so-called Olmec style objects from documented archaeological excavations makes it clear that the problem with the Olmec style label is comparable to the dilemma created by the Izapa style label. Findings from well-documented archaeological contexts often contradict the untested assumptions based on the application of the traditional "Olmec" label to unprovenienced artifacts. These findings show that entire categories of so-called Olmec objects are rare or even absent in the Gulf coast region and suggest that the distribution of "Olmec style" artifacts across much of Mesoamerica represents a basic ideological system shared by most Mesoamerican societies without evidence for a single origin (Flannery and Marcus 2000; Grove 1989a, 1989b; Lesure 2004; Marcus 1989). Furthermore, a number of archaeological studies have indicated that so-called Olmec motifs functioned in different ways within different Mesoamerican societies (Demarest 1989; Flannery and Marcus 1976a; Grove 1989a; Hirth 1978; Pyne 1976; Sharer 1989a; Tolstoy et al. 1977), rather than signifying Olmec presence or influences emanating from the Gulf coast.

Did Maya States Originate with the Olmec?

The followers of the cultura madre model often conclude that the Olmec developed the first states in Mesoamerica, which in turn gave rise to Maya states. One common scenario holds that during the Early Preclassic period the Gulf coast site of San Lorenzo developed into Mesoamerica's first state, and that during the Middle Preclassic its successor, La Venta, developed into a more powerful state, which in turn spurred the development of the first Maya states. This volume provides critical archaeological information about these sites in Chapter 4 (San Lorenzo) and Chapter 5 (La Venta); Chapter 5 also presents important summaries of Preclassic sites in the intermediate region between the Olmec and Maya areas.

In contrast, the followers of the co-evolutionary model conclude that Maya states were the result of a long and complex process that involved interaction with a variety of people and places within the Maya area and the wider arena of Mesoamerica-—including but not restricted to the Olmec.

The co-evolutionary advocates also raise questions about the validity of the proposed unilinear descent of statehood from San Lorenzo to La Venta and then to the first Maya states. These questions are based in the evidence documented by archaeology and its interpretation, excluding assumptions based on unprovenienced artifacts, so we will highlight a few of these questions here.

There is no doubt that archaeology reveals some intriguing similarities in key attributes of early states found at both Olmec and Maya sites, especially during the crucial Middle Preclassic era. But early Maya sites manifest similarities in these key attributes with many sites throughout Mesoamerica, not just to those in the Olmec area. At a minimum, this observation raises the possibility that San Lorenzo and La Venta were not the only potential ancestors of Maya states. Prime examples of such similarities come from archaeological research at a number of Middle Preclassic sites, including sites in highland Mexico such as Chalcatzingo and San Jose Mogote, and Maya area sites such as La Blanca, Kaminaljuyu, Chalchuapa, and Nakbe. (These potential connections will be discussed later in this chapter and in Chapters 3, 7, and 8.)

Of course the similarities among these key attributes must be assessed based on their relative age and the kind of relationship each represents. But above all, the significance of these attributes lies in what each of these attributes represents—as surviving material reflections of the increasingly centralized sociopolitical organizations within Maya states, or what Clark refers to as the "institutions and accouterments of power" (Chapter 5).

Specific questions are often raised about the archaeological evidence for concluding that San Lorenzo represents Mesoamerica's first state (Clark 2007a). These questions involve whether or not San Lorenzo possesses sufficient archaeological evidence supporting its development as a state and, perhaps more significantly, whether or not this evidence appears at San Lorenzo significantly earlier than anywhere else in Mesoamerica. As result, the potential influence from San Lorenzo on the development of Maya states remains an open question.

A similar situation exists in regard to La Venta, although the question as to whether or not La Venta represents a state is not the central issue. There is little doubt that La Venta was one of the largest and most impressive Middle Preclassic sites in Mesoamerica. In this case the questions focus on La Venta's posited role as the pivotal intermediary for the transmission of concepts of state organization to the Maya. The Chiapas region represents a crucial arena of interaction between La Venta and the Maya area (see Chapter 5). Yet to demonstrate that La Venta was the transmitter of concepts and symbols of state power to Maya societies located to the east, the archaeological evidence ought to show that La Venta's development as a state preceded the earliest Maya states. Firm evidence is also sought that demonstrates La Venta possessed earlier examples of the key attributes of Maya states and, ideally, how these developments were transmitted and responsible for generating the first Maya states.

As an alternative interpretation of the extant archaeological evidence, there is considerable support for a series of complex and varied pathways for the origins of specific key attributes of Maya states, suggesting that the first Maya states arose in concert with similar developments elsewhere in Mesoamerica. In this scenario it seems very likely that some attributes of Maya states had their origins at La Venta. But at the same time, connections having nothing to do with the Olmec, such as those between central and western Mexico (Grove, Chapter 3), or between the Maya lowlands and highlands (Estrada-Belli, Chapter 6) also contributed significantly to the development of Maya states. Thus it seems that the issue of origins remains too complex to support a single genesis for Maya states, especially given the considerable variability seen in their characteristics across time and space.

The developmental pathways for the origins of Maya states are too complex to be summarized here, but the known temporal and spatial distributions of several key attributes provide clues pointing to their multiple origins. For example, crucial evidence for centralized political authority in Preclassic and Classic Maya states comes from large stone monuments used to commemorate both calendrical cycles and the careers of individual rulers, consistent with the ideological links between rulers and the infinite cycles of time. In fact, there is evidence to suggest that monumental time markers originated in the Maya area. Archaeological excavations at Naranjo, Guatemala, near Kaminaljuyu, reveal that at the beginning of the Middle Preclassic era (ca. 900–700 BCE) upright stone stelae were set in rows paired with flat stone altars in a pattern identical to later Maya monuments used as K'atun (20 year) markers (Arroyo 2010). Interestingly, there is a similar Middle Preclassic stela-altar pairing in central Mexico at Chalcatzingo (Grove, Chapter 3).

On the other hand monuments commemorating rulers usually take two forms, and both apparently originated outside of the Maya area. Carvings in the round are represented by colossal portrait heads and tabletop altars found at Olmec sites on the Gulf coast, including both San Lorenzo and La Venta. In contrast, bas-relief portraits may have their origins in central Mexico, as at Chalcatzingo, and are also found at La Venta where they date to the later Middle Preclassic. But while bas-relief carved monuments became a hallmark of Maya states as early as the Middle Preclassic, colossal portrait heads and tabletop altars were never adopted in the Maya lowlands.

Another key attribute reflecting increasing centralized authority within the earliest Mesoamerican states, monumental architecture, clearly has diverse origins. The earliest examples include large conical earthen "pyramids," which apparently originated in the southern Maya area at sites along the Pacific coastal plain. The earliest known example is at La Blanca, Guatemala (Love, Chapter 7), and another Middle Preclassic example was constructed farther to the southeast at Chalchuapa, El Salvador (Sharer 1978). The most famous example is found at La Venta, Mexico, where it remains the site's most prominent construction. Other examples of Middle Preclassic monumental architecture with varied origins include ball courts and so-called E-Groups, both of which are discussed in this volume by Clark (Chapter 5).

The essential conclusion drawn from these few examples revealed by archaeological evidence is that the key attributes of early states followed complex developmental patterns. The evidence points to multiple origins, rather than a single genesis, for the institutions and accouterments of centralized power manifested by Mesoamerican states, including those of the Maya.

The Past as Supposition

Despite lack of agreement on the Olmec origins issue, all the contributors to this volume appear to agree that connections between sites or regions discussed herein should be treated as suppositions, not established fact, until there is more secure evidence for the origins of specific features, objects, or motifs. This need for caution is underscored by evidence already mentioned that suggests a number of so-called Olmec style motifs and objects actually originated outside the Olmec heartland (Flannery and Marcus 2000).

Beyond this issue of primacy, it remains extremely difficult to demonstrate that a connection based on similarity of form actually involved the transmission of ideas or innovations, which caused changes within recipient societies. In other words, *evidence for the spread of a distinctive form or motif is not evidence for the spread of an idea*. Yet this one-to-one correlation between form and meaning remains a basic tenet of the cultura madre model. For example, a study based on INAA data from a small sample of Mesoamerican sites appears to show that the Olmec center of San Lorenzo traded pottery to several Mesoamerican sites without receiving pottery from these sites in return (Blomster et al. 2005). Among the analyzed sample were a very small number of sherds decorated with what were labeled "Olmec motifs." This evidence that San Lorenzo exported pottery to other Mesoamerican sites has been used to support the cultura madre model (Neff 2006), although no evidence has been presented to show that these vessels (with or without "Olmec motifs") in any way transmitted Olmec ideas to the recipient sites (Sharer 2007).

As we learn more about temporal and spatial patterns in the archaeological evidence, these data increasingly contradict the assumption of a single origin for a process as complex as the development of states in Mesoamerica (Demarest 1989; Flannery and Marcus 2000). For many scholars, these considerations create severe doubts about the utility of unilinear evolutionary scenarios like the cultura madre model. The more complex co-evolutionary model appears far more compatible with the pattern of multiple origins of the key attributes of states revealed by current archaeological evidence, and therefore provides a better theoretical basis for unraveling the origins of Maya states. Support for the co-evolutionary model also derives from the evermore varied pattern of manifestations of sociopolitical complexity revealed by new research and the constantly expanding corpus of archaeological data.

It must be remembered that the co-evolutionary model is likewise based on observed similarities in the archaeological record, which in turn lead to a series of suppositions about the past. And while the Preclassic archaeological record in Mesoamerica continues to be enriched by unprecedented new discoveries, much more work needs to be done. Nonetheless, one of the strengths of the co-evolutionary model is that it places greater emphasis on well-provenienced data to document both the age and origins of specific attributes of states in the archaeological record, and relies less on cultural affiliations based on arbitrary stylistic labels and assumed temporal priorities attached to unprovenienced artifacts.

MODELS FOR MAYA STATES

The second major issue examined in this chapter involves the models used to describe and understand ancient Maya states. In the second chapter of this volume Runggaldier and Hammond review the development of some of these models. Here we simply note that in the decades since the 1973 SAR Advanced Seminar scholars have proposed a variety of political organizational models in attempts to characterize the governing systems of the ancient Maya (see Chase and Chase 1996; Fox et al. 1996; Sharer and Golden 2004). Most of these proposals have been based on models derived from sources outside of the Maya area, ranging from Medieval Europe to Africa or Southeast Asia (Adams and Smith 1981; Demarest 1992a; Sanders 1981a). Alternatively, some scholars have advanced models based on Maya archaeological and historical data (Marcus 1995; Sharer 1993). While external models may facilitate cross-cultural comparisons, it is both possible and desirable to create Maya-based models that also allow this comparative perspective (Sharer and Golden 2004).

Externally based models were especially popular before most Maya historical inscriptions could be read in any detail, at a time when our understanding of Classic Maya political systems was grounded in archaeological and ethnohistorical data. With the decipherment of Classic Maya texts our knowledge of Classic Maya political organizations has greatly expanded. Information about the careers of individual Maya kings, royal dynasties, hierarchies of governing officials, alliances, and warfare has transformed our understanding of Classic Maya states (Houston and Stuart 1996; Martin and Grube 2008), especially when combined with well-documented archaeological data (Fash and Sharer 1991). Although based on diverse analogies (e.g., Demarest 1992a, 2004; Sanders 1981a; Webster et al. 2000), the application of external models tended to support a view of Classic Maya states as decentralized polities—weakly integrated organizations without stratified and hierarchical political structures led by rulers lacking coercive power. Models based on combining Maya historical and archaeological data tend to view Classic Maya polities as more centralized states—strongly integrated organizations with stratified and hierarchical political structures led by rulers wielding coercive power (Chase and Chase 1996; Sharer and Traxler 2006). These models allow cross-cultural comparisons while providing more accurate and detailed portrayals of the organization and workings of Classic Maya states, since they are directly derived from Maya sources (Sharer and Golden 2004).

Maya states during the Classic period formed a mosaic of independent polities spread across much of the lowland area. The distribution of these Classic polities continues to be defined by combining archaeological and historical research. Yet, as these data indicate, there was no single template that defined all Maya states. Classic Maya states were diverse in their organizational structure, scale, and duration. In recognition of this diversity, the 2007 Penn Museum Conference defined the general characteristics of Maya states to guide discussions of this issue (Table 1.2).

The current portrayal of Classic Maya states established the reference point for the 2007 Penn Museum Conference and the present volume. While our understanding of Classic Maya states is greatly enriched by information generated by combining archaeological and historical data, there is far less information available for understanding Preclassic Maya states and their origins. In reality there are very few historical data from the Preclassic period, and as a result some aspects of Maya states, like the prominent role of individual rulers and dynasties, are less visible before the Classic era. The data available for attempting to delineate the origins of Maya states is

Table 1.2. General Characteristics of Classic Maya States (as defined by the 2007 Penn Museum Conference)

CAPITALS AND POLITIES

- Capitals were the controlling nexus of power domains within states
- Capitals and their territories typified by asymmetrical relationships, hierarchies, diverse roles and statuses, diverse ideologies, and integrative mechanisms

GOVERNING INSTITUTIONS

- Specialized governmental functions
- Nonkin-based institutional organizations
- Threat of coercive power

OTHER CHARACTERISTICS

- Membership defined by place or territory
- Promotion of institutionalized ideology

almost exclusively derived from the archaeological record. Historical data from the Classic period can provide templates for outlining the origins and evolution of Maya states, which can be evaluated against the expanding corpus of archaeological evidence from Preclassic contexts. Of course the archaeological record will always remain frustratingly incomplete, especially in the Maya lowlands, where the combination of a humid tropical environment and overwhelming disturbances from subsequent Classic period activity often obscures the remains of Preclassic occupation.

By virtue of its dependence on the material remains of past societies, archaeology cannot identify most sudden changes instigated by individuals or events, or define watershed moments when particular sites or regions crossed the nebulous threshold into statehood. In addition, there is no single agreed-upon definition of the state, or more appropriately in the Maya case, the pre-industrial or archaic state (Feinman and Marcus 1998), especially as reflected in the archaeological record (see the introduction in Love, Chapter 7). Given these realities, the conference participants agreed that instead of dwelling on questions of whether or not a given site represents a state by a particular time period, this volume would focus on the archaeological evidence for key attributes of statehood, namely increasing complexity and the centralization of authority over time. Discussions during the conference reiterated the hallmarks of complexity long recognized by archaeologists (Table 1.2), and their potential archaeological signatures, which often reflect increasing complexity through time (Table 1.3). The conferees discussed these archaeological correlates of Maya states from various perspectives. Tracing these archaeological manifestations over the course of the Preclassic era may point to the likely origins of these phenomena, recognizing that some manifestations of increasing complexity and centralization may be more relevant to the development of Classic Maya states than others. Following from this, the participants agreed it was important to define complexity in a way that was compatible with the theoretical and methodological issues highlighted by on-going debates concerning the origins and definitions of Maya states. Accordingly, the conference defined complexity in this context as,

> The increasing presence of nonkin-based organizations that integrated society under a centralized authority possessing coercive power.

Table 1.3. Potential Archaeological Correlates for Origins of Maya States Likely indicators of increasing complexity and centralization of authority during the Preclassic era.

POPULATION GROWTH

- Sites: increase in size, esp. residential remains
- Regions: increase in number of sites

SOCIAL STRATIFICATION

- Prestige goods
- Burials (as reflections of inherited vs. achieved status)
- Residences (as reflections of status differences)

APPEARANCE OF LARGE REGIONAL CENTERS

- Monumental architecture (temples, administrative buildings, palaces, plazas, ball courts)
- Extensive settlement remains (houses and middens)
- Monuments

SITE HIERARCHIES

- Number of tiers
- Definition of hierarchies
- Connections to centers (causeways)

LABOR MOBILIZATION (distinguish communal from corvée labor)

- Functional evidence
- Temples and monuments dedicated to deities as indicators of communal labor
- Temples, monuments, residences, and tombs dedicated to rulers as indicators of corvée labor

EXCHANGE (acquisition, manufacture, exchange, and distribution of commodities)

- Prestige goods
- Utilitarian goods

INTERACTION (evidence for movement of goods, people, and ideas)

- Alliances and diplomacy
- Colonization
- Trade and gifting

WARFARE (evidence of weapons, captives, garrisons, fortifications)

- Intervention
- Conquest

In sum, the difficulty in delineating the origins of Maya states is inherent given the limitations of archaeological data, compounded by the theoretical issues discussed previously, including the lack of consensus on the definition of states and the degree of centralization of power and organization within Classic Maya states. As a corollary to this, a further complication enters from the variability manifested by Maya states across time and space. A final hurdle derives from the difficulty of recognizing the diverse interplay between internal developments and external stimulation in any evolutionary process.

THE PRESENT VOLUME

In examining the origins of Maya states, we contend that combining an examination of topical issues with a regional perspective to examine the developmental trajectories of emerging complexity can partially mitigate these and other complicating factors. This allows differences measured on a centralized-noncentralized organizational continuum, and other dimensions of variability, to be defined and discussed from both topical and regional perspectives. Accordingly, this volume will highlight the role of interregional interaction and include discussions of two major Mesoamerican regions outside the Maya area—namely highland Mexico and the Gulf coast lowlands. Then, at the core of the study, we will examine the development of complexity during the Preclassic era within the major regions of the Maya area—the Pacific coast, highlands, and lowlands. Finally, the volume will consider the developmental context for the origins of Maya states with discussions of Preclassic economic, social, political, and ideological systems.

To provide an introduction to the volume, the present chapter is followed by a historical overview of Maya state models by Astrid Runggaldier and Norman Hammond. Their chapter reviews the complexities involved in defining Maya states, including the utility of cross-cultural comparisons, the use of settlement pattern studies, concepts of cities and urbanism, contributions of epigraphic data, and the importance of ideology. It concludes with perspectives on the Preclassic period as the era and setting for the origin of Maya states.

Part I of the volume samples the wider Mesoamerican context for the origins of Maya states. Chapter 3 by David Grove, "Preclassic Central

Mexico: The Uncertain Pathway from Tlatilco to Teotihuacan," along with the chapter by John Clark that follows, plays a central role in assessing the developmental trajectories that led to the origins of states in the non-Maya regions of Mesoamerica during the Preclassic period. At the core of his discussion, Grove asks, "Did the central Mexican region's interactions with the Gulf coast Olmec introduce 'social, political, and religious institutions' that persisted over time and were somehow relevant to regional highland developments that led ultimately to the Teotihuacan state?" To answer this crucial question, Grove examines the archaeological evidence to gain a broad overview by carefully drawing out meaningful patterns of developing complexity and their implications from the uneven data gleaned from the central Mexican highlands.

In the next chapter, "The Early Preclassic Olmec," Ann Cyphers applies her San Lorenzo excavation data to examine theories for the origins and development of Olmec civilization, concentrating on the role of San Lorenzo within the developmental course of Olmec civilization. She concludes that the extant data do not support proposals for San Lorenzo's origins via migrations from outside the Gulf coast, or the development of increasing complexity according to the river levee model proposed by Coe and Diehl (1980). Instead Cyphers relies on a model based on *in situ* development given the site's locational advantages for riverine transport, communication, subsistence, and protection. Regional settlement differentiation and specialization, and the proposed founding of subordinate polities including those represented by Laguna de los Cerros and possibly La Venta, point to San Lorenzo's growth in size and complexity as a polity capital. This issue has critical significance for assessing the degree to which San Lorenzo can be considered a progenitor of later states in Mesoamerica, including those of central Mexico and the Maya, as discussed by several other authors in this volume (see Grove, Chapter 3; Clark, Chapter 5; and Hansen, Chapter 8).

Readers will note that John Clark, author of Chapter 5, "Western Kingdoms of the Middle Preclassic," uses the terms *kingdom* and *kings* to refer to Preclassic polities and their leaders. Clark's usage follows that of investigators who infer the rule of "kings" at Olmec sites, based on individualized portraits on carved table-top altars, colossal heads, and stelae. Nonetheless, most conference participants preferred the comparable terms *polity* and *ruler* in their discussions of the Preclassic era since these terms carry fewer culture-specific connotations. *Polity* is used in this volume to refer to a complex hierarchical and territorially based political system, rather than the definition used in Political Science to refer to a system of governance (Cioffi-Revilla and Landman 1999).

Clark's presentation of data from several Middle Preclassic sites in Chiapas is an especially important contribution. The discussions of many of these sites are published here in Chapter 5 for the first time. In Clark's scenario these sites were part of a developmental link between the Olmec and the first Maya states, based on his proposal that "institutions and accoutrements of power" found at San Lorenzo and La Venta continued in later polities, including those of the lowland Maya. Clark concludes, however, that the extant data are not yet sufficient to fully evaluate or demonstrate beyond a reasonable doubt that La Venta was the critical unilineal developmental link between San Lorenzo and the origins of Maya states.

Part II of the volume examines our current understanding of the origins of Maya states from the perspective of interregional interaction and developments in both the southern Maya area (Pacific coast and highlands) and in the lowlands. In Chapter 6, "Regional and Interregional Interactions and the Preclassic Maya," Francisco Estrada-Belli points out that while diffusion and migration dominated previous theories for the origin and development of Maya civilization, current explanations rely on regional and interregional interaction based on far more data. In this volume, and in a more extensive discussion elsewhere (Estrada-Belli 2011), Estrada-Belli explores these interactions as the agents of both change and coherency in the development of increased complexity that led to Maya states, especially in the context of a common Mesoamerican ideology. This process is visible in the Middle and Late Preclassic Maya lowlands, expressed in the greater size and complexity of sites, along with continuities in ritual practice and the associated concept of kingship. Rather than seeing the Preclassic/Classic transition as a critical juncture in the development of Maya states, Estrada-Belli proposes their origins lie far earlier, traceable to the beginning of the Middle Preclassic (ca. 800 BCE) with the founding of initial ritual centers on hilltops by rulers who usurped the ideology of the Maize god as life-giver and symbol of central authority.

In Chapter 7, "Early States in the Southern Maya Region," Michael Love focuses on indications of social change to identify the emergence of two Preclassic states, Kaminaljuyu (Maya highlands) and El Ujuxte (Pacific coastal plain). These are very different examples and demonstrate the diversity of origins and development of Mesoamerican states. El Ujuxte's success was built upon the collapse of La Blanca, the capital of a large early Middle Preclassic polity with centralized authority, monumental constructions, and a pan-Mesoamerican ideology of rulership, although Love concludes that its political infrastructure was not large or complex enough to qualify as a state. El Ujuxte, however, certainly qualifies with a centrally planned capital, four secondary administrative centers, and smaller tertiary centers that administered a polity covering at least 600 km2. Kaminaljuyu's development was more gradual, but was marked by a growth spurt in the Late Preclassic. Both polity capitals show centralization and expansion of elite power, concentration of wealth, increased expenditures for public works, intensified subsistence, and an ideology of rulership. Kaminaljuyu differed from El Ujuxte in its huge irrigation canals and carved monuments with texts. Household data at El Ujuxte shows increased control of the economy by elites, while household and economic data is lacking at Kaminaljuyu. Both states collapsed at the end of the Preclassic, although new elite masters revived Kaminaljuyu in the Classic period.

The position taken by Richard Hansen in Chapter 8, "Cultural and Environmental Components of the First Maya States: A Perspective from the Central and Southern Maya Lowlands," favors an autochthonous development of lowland Maya states in the Preclassic period, spurred by competitive ideologies and interactions. He sees this as a part of an overall process that led to the origins of the first Mesoamerican states in the Middle Preclassic, and development of expansive states in the Late Preclassic. Hansen bases his scenario on the archaeological evidence from what may have been the core of this development in the Maya lowlands, the Mirador region (or Basin), where Nakbe appears to have emerged as a state in the Middle Preclassic, followed by the far larger El Mirador state in the Late Preclassic. These and other Preclassic states in the Maya lowlands were based on high levels of agricultural productivity, specialized production systems, mobilization of labor for public works (including investments in causeway networks that linked major polities into a cohesive unit in the Mirador region), and the manipulation of architectural art and religious ideology. Even though El Mirador and a number of other, smaller lowland states collapsed at the end of the Preclassic period, Hansen concludes that these developments were direct antecedents for the Maya lowland states of the subsequent Classic period.

Part III focuses on the Maya lowlands to discuss the theoretical contexts for understanding the origins of Maya states examined from economic, social, political, and ideological perspectives. Eleanor King's contribution, Chapter 9, "Rethinking the Role of Early Economies in the Rise of Maya States: A View from the Lowlands," goes beyond the traditional model of elite control of the economy to examine archaeological data from a nonhierarchical and emic perspective by identifying the resources utilized, how they were used, and how they were valued. Her analysis reveals how diverse economic conditions contributed to sociopolitical differences during the Middle and Late Preclassic eras. Thus across different places and times control over land, water, scarce resources, and trade likely supported growth in complexity. King concludes that the economic basis of authority rested on Maya concepts of value, for these determined economic choices made by rulers, elites, and nonelites. From a Maya viewpoint value was proportional to the amount of labor investment, and her model links value placed on labor with a heterarchical organizational structure. At the head of that structure, the ruler's wealth and power were dependent on labor investments, measured by the amount of labor he controlled and his obligations to both his subjects and the gods.

In Chapter 10, "Middle Preclassic Maya Society: Tilting at Windmills or Giants of Civilization?," Marcello Canuto takes on the difficult task of reconstructing the development of social complexity in the Maya lowlands during the Middle Preclassic period. His data are drawn from both the central lowlands of Belize and Guatemala, and the southeast region of Honduras, and his perspective is informed by both archaeology and ethnography. Canuto brings these threads together to outline an emergent lineage-community model that sees the beginnings of social inequality as an internal process within Middle Preclassic lowland society based on family, kinship, and descent group relationships. His discussion of the first steps toward the development of complexity, with specific applications for the mobilization of labor, trace a plausible pathway that could well have led to the organizational foundations of Maya states. The social changes outlined by Canuto also mesh well with Eleanor King's discussions of the economic basis for power in the preceding chapter.

Simon Martin in Chapter 11, "Ideology and the Early Maya Polity," is concerned with the ideological bases of political power. The central conclusion he draws from epigraphic and iconographic evidence is that the ideology of Maya kingship was in place by the Late Preclassic period. As he points out, "The regalia and rituals of lordship were consistent from at least 100 BCE onwards….The term *ajaw* itself was in use from at least the first part of the Late Preclassic onwards (ca. 400–200 BCE)." While the developmental course of Maya kingship is not fully documented given temporal and spatial gaps in the record, the implications of Martin's study are that the institution of Maya kingship and its ideological bases, along with rule by royal dynasties, as central components of Maya states as known from the Classic period, were in place by the Late Preclassic in the Maya lowlands. Although he is properly cautious about the existence of "holy" kings before the Classic period, given the absence of historical evidence for the *k'uhul* title in Preclassic contexts, Martin points to the continuities between the Preclassic and Classic institution of kingship as presently understood: "Classic kings remade themselves in the image of their forefathers, wore their crowns, underwent their rituals, and thought themselves imbued by the same procreative powers."

THE IMPORTANCE OF THE NORTHERN MAYA LOWLANDS

The original plan for The Origins of Maya States Conference called for a contribution focused on Preclassic developments in the northern Maya lowlands of Yucatan that would round out coverage of this topic for the entire Maya area. Unfortunately, this contribution could not be realized within the time frame of the conference schedule. Nonetheless the participants recognized the need for a chapter on the northern lowlands in the published conference volume, and as a result, renewed discussions were held with several colleagues currently working in Yucatan to secure such a chapter for this publication. Ultimately, however, time constraints and conflicting commitments again defeated our efforts to secure this northern lowland chapter, and we had no choice but to go forward without being able to fill this major lacunae in our coverage of the origins of Maya states.

So that the reader can gain some appreciation of the importance of the northern Maya lowlands to any discussion of the origins of Maya states, we offer the following brief commentary. We do so while acknowledging that until fairly recently the northern lowlands has been often characterized as an area with sparse occupation during the Middle and

Late Preclassic eras. As a result, it was often assumed that the northern area was relatively peripheral to the early development of Maya states. This picture has been completely changed by the results of recent archaeological research. For example, in the region of northwest Yucatan, where only eight Preclassic sites had been reported previously, a recent archaeological survey documented 140 Preclassic sites, including 116 with Middle Preclassic and 92 with Late Preclassic occupation (Andrews and Robles Castellanos 2004; Anderson 2011). An unprecedented total of 23 Preclassic ball courts were discovered in this same region, and at least one of these Preclassic sites was also found to possesses a triadic structure (Anderson 2011), recalling a distinctive Preclassic architectural hallmark found at El Mirador, Nakbe, and other Preclassic sites farther south in the central Maya lowlands.

These recent findings, combined with further discoveries of Preclassic sites in other areas of Yucatan, have fundamentally changed the perception of early developments in the northern Maya lowlands. Rather than being a sparsely settled region in the Preclassic, we now know that relatively high population levels were in place in Yucatan throughout the Middle and Late Preclassic periods. As a result, it is clear that instead of being a peripheral region during the Preclassic, the northern lowland area was very much involved in the developmental processes that led to the formation of Maya states. This realization becomes even more important given the apparent unique status of Preclassic Yucatan in regard to interaction with other regions of Mesoamerica. The evidence from Preclassic architecture and artifacts in Yucatan demonstrates considerable trade and interaction with other areas of Mesoamerica, along with one notable distinction. There is almost no evidence that the northern lowlands shared the widespread and much-discussed inventory of symbols traditionally associated with the so-called Olmec style found associated with Middle Preclassic monuments and artifacts in other Mesoamerican regions. This absence has yet to be fully explained, but could reflect the presence of an alternative Preclassic ideological system in Yucatan (Anderson 2011). Further research is obviously needed to determine to what degree a distinct Preclassic ideological system may have operated in this northern region, as well as to provide a more complete understanding of the important role played by the northern Maya lowlands in the overall development of Maya states.

ORIGINS OF MAYA STATES: A SYNTHESIS

The authors of this volume present good cases for the origins of states in the Middle Preclassic period (ca. 1000–400 BCE) both in the Maya area and in several non-Maya areas of Mexico. The archaeological evidence from this era suggests the appearance of non kin-based organizations possessing coercive power that integrated society under centralized authority, consistent with the already mentioned conference definition of states. The beginnings of Maya states might be traced back to the founders of ritual centers that successfully formulated the basic ideology of rulership (Estrada-Belli, Chapter 6; Martin, Chapter 11). Well-documented examples of Middle Preclassic states include La Venta and several polities in central Chiapas (Clark, Chapter 5), the beginnings of El Ujuxte on the Pacific coastal plain and Kaminaljuyu in the Maya Highlands (Love, Chapter 7), and Nakbe in the Mirador region of the Maya lowlands (Hansen, Chapter 8). The following Late Preclassic period (ca. 400 BCE–200 CE) saw the growth of more powerful expansive states. Both El Ujuxte and Kaminaljuyu went on to become far larger states in the Late Preclassic, while Nakbe was succeeded by the immense Late Preclassic city of El Mirador.

Several examples of large and complex early Maya sites can be proposed as the capitals of these initial states. Both Kaminaljuyu and Nakbe are notable for evidence of the beginnings of intensified agricultural production in the Middle Preclassic—with implications for accelerated population growth, increases in social complexity, and centralization of authority. In addition to monumental architecture at both sites, at Kaminaljuyu this trajectory was reinforced by investments in excavating large irrigation canals, while Nakbe's developmental course was boosted by the construction of garden plots composed of transported fertile bajo soils (Chapters 7 and 8). Developments in the Mirador region included one unique feature that was probably decisive for the origins of the initial states in the Maya lowlands—the first known network of causeways in Mesoamerica. This network interconnected the major centers of the region from the Middle Preclassic period onward, and greatly facilitated communication and commerce within the region. Causeway construction and maintenance certainly required the mobilization of a labor force of unprecedented size, with clear implications for efficient centralized control.

This Middle Preclassic causeway system also indicates that the early rulers in the Mirador region operated in concert, given the need for cooperative efforts to build and maintain the network. Taking this implication a step further, the efficiency of such a coherent political system would have been increased if one of the Mirador region's leaders, perhaps the ruler of Nakbe, possessed a measure of authority over his companions. Such a proposal for the existence of a hierarchy among the rulers of the Middle Preclassic Mirador region is clearly conjectural at this point. However, an analogy lies in the later Classic system in which some Maya kings, like those ruling at Calakmul, Copan, and Tikal, had the power to "oversee" alliances and events such as inaugurations and heir designations in the capitals of subordinate rulers (Martin and Grube 2008). Thus, we feel it is reasonable to propose that the origins of such political hierarchies among Maya kings may hark back to the time of the emergence of the first rulers in the Maya lowlands—a proposition that could be tested by future research.

The timing and patterns in the development of Maya states are consistent in both the southern area and the lowlands to the north. The same can be said for the remainder of Mesoamerica, although one contributor to this volume advocates developmental primacy for the Gulf coast Olmec (Clark, Chapter 5). Yet, as we have discussed earlier, there is evidence for innovations and unique elements in this process within all regions of Mesoamerica, along with evidence of complex patterns of interaction that belie any assumption that all Mesoamerican states followed the same pathway. For example, trade connections between the Maya area and Highland Mexico apparently predate the process of emerging complexity (Grove, Chapter 3). These links were maintained into the Middle Preclassic when we can see continued connections between these two distant regions in ceramics and the use of stelae paired with flat stone "altars." Similarities in pottery may demonstrate long-distance trade or even social relationships, but probably had few if any developmental consequences. On the other hand, the presence of Middle Preclassic stela-altar pairs at both Chalcatzingo in Morelos and Naranjo in the Valley of Guatemala may be a direct reflection of the commemoration of calendrical cycles and the link between the passage of time and perpetuation of centralized authority, with clear sociopolitical developmental implications.

The lack of a single path towards statehood is also apparent from the unique aspects in the developmental process as it played out within each region of the Maya area, and indeed within all of Mesoamerica. These regional trajectories reflect varied environmental, social, and cultural circumstances, as well as unique historical events and choices made by individuals and factions within each society. The array of different or even unique factors was matched by general similarities discernable in all regions, including economic surpluses, population growth, occupational specializations, and the crucial role played by ideology to mobilize labor and justify distinctions in wealth and power. In Yucatan the evidence suggests an intense investment in the construction of ball courts, suggesting a distinct pathway for the reinforcement of authority.

Investments in irrigation agriculture and resultant increased food surpluses undoubtedly contributed to the development of Preclassic Kaminaljuyu, spurring population growth and greater prosperity. In the lowland Mirador region, increased agricultural yields made possible by rich bajo soils at Nakbe had similar consequences for surpluses and population growth. Equivalent growth likely occurred at several other Middle Preclassic sites in the Mirador region. At the same time, the choice to invest surpluses of labor and resources in a unique system of causeways paid off in increased efficiency of communication and movements of people and goods. This undoubtedly contributed to the Middle Preclassic development of the region. Later on an expanded causeway system was probably crucial to El Mirador's success in creating a more highly centralized economic and political organization that consolidated the Mirador region and gave rise to the largest and most powerful Late Preclassic state in the entire lowlands, if not all of Mesoamerica. The developmental pattern was somewhat different in the southern Maya area, but by the Late Preclassic the highland Kaminaljuyu state had become far larger than its regional contemporaries, and it must have dominated the central highlands and perhaps more distant areas beyond.

What is far less clear is the degree to which these Preclassic states were comparable in scale and organization to Classic period Maya states, as there is almost no historical evidence from the Preclassic era. We know far more about these later Maya states due to the greater availability of both archaeological and historical data. We can say that Middle Preclassic polities tended to be smaller in scale and less centralized than the larger "expansive" states of the Late Preclassic, acknowledging that considerable variation existed in Preclassic times as it did in the later Classic period. As suggested previously, given the documented continuities between the Preclassic and

Classic eras, we can use attributes of Classic Maya states to model some features of Preclassic states, subject to refinement and testing by further archaeological research.

Measured by the scale of public works, the archaeological evidence demonstrates that the Late Preclassic Maya capital of El Mirador was larger than its contemporaries; indeed its constructions outstripped those of any Classic era Maya capital. Yet the degree of organizational complexity and centralization at El Mirador remains unknown in comparison with what we know about Classic Maya states. One core feature of Classic Maya states was clearly present in the Preclassic, centralized power as manifested in the institution of kingship. It is likely that early versions of Maya kings were in place and ruling at the larger Middle Preclassic centers, based on the archaeological evidence for increasing centralization of authority in various regions of the Maya area. The monumentality of El Mirador's temples and its causeway system testify to the power of its rulers. Carved portraits of Preclassic kings, best seen at Kaminaljuyu and other southern area capitals, share the paraphernalia and ideological associations of their Classic counterparts. In the Maya lowlands the San Bartolo murals provide the clearest evidence for Preclassic versions of the same royal ideology of world creation and Maize god rebirth that reinforced the authority of Classic period Maya kings (Martin, Chapter 11; Saturno 2007a).

Aside from clear indications of trade and warfare, another unresolved issue concerns the kinds of interaction that took place between Preclassic Maya states, especially those associated with the largest Preclassic capitals, Kaminaljuyu in the highlands and El Mirador in the lowlands. As Michael Love points out (Chapter 7), we know very little about Kaminaljuyu's relations with its surrounding region. The same uncertainty exists for the lowlands regarding El Mirador's relationship with other Preclassic sites and regions. The nature of the Preclassic political landscape is especially murky. Were the Preclassic lowland Maya states autonomous polities, and if so, was El Mirador simply a far larger member of a system of independent states? Or did El Mirador exercise a degree of authority over its smaller lowland neighbors. If so, what kinds of authority did it command, and how far did its reach extend across the lowlands? One obvious model for defining the extent of El Mirador's power has already been mentioned, namely the Classic system of royal oversight recorded in a number of texts. If this system existed in the Preclassic, it is all but certain that the rulers of El Mirador possessed the authority to oversee events and even receive tribute from other kings who would have been placed in a subordinate position.

FROM PRECLASSIC TO CLASSIC MAYA STATES: A PROVISIONAL MODEL

In keeping with the conference goal of generating new models for the origins of Maya states, we will close with a provisional model that outlines a developmental trajectory for the emergence and demise of Preclassic Maya states. This follows the picture just presented, calling for the origins of centralized states in the Middle Preclassic, and the emergence of larger and more complex states in the Late Preclassic, led by Kaminaljuyu in the highlands and El Mirador in the lowlands. The model also includes the collapse of these paramount states in the Terminal Preclassic, setting the stage for the Classic period revival of a lowland system of states.

Middle Preclassic

1. Rise of small incipient states that coalesced around growing centers with successful rulers having authority rooted in control over labor, essential resources, prestige items, ideology, warfare and security (Pacific coast, highlands, and lowlands)
2. Royal authority reinforced by symbols and institutions adapted from multiple sources within the Maya area and Mesoamerica
3. Further growth in population, wealth, and centralized authority promoted by intensification of agriculture (documented by irrigation canals at Kaminaljuyu, bajo soil plots at Nakbe)
4. Further centralization and cohesion of authority associated with causeway construction in the Mirador region and ball court construction in Yucatan
5. Possible further cohesion and increased administrative efficiency by postulated hierarchy of Mirador region rulers headed by a paramount ruler at Nakbe.

Late Preclassic

1. Rise of larger expansionist states ruled by dynasties of kings, evident from carved monuments at Kaminaljuyu and likely at El Mirador

2. At Kaminaljuyu, further growth in population, wealth, and centralized authority promoted by expansion of irrigation system
3. Possible emergence of paramount ruler at Kaminaljuyu with limited authority over smaller states in highlands, southeast region, and portions of coastal plain
4. At El Mirador, further growth in population, wealth, and centralized authority promoted by expansion of agricultural and causeway systems
5. Possible emergence of paramount ruler at El Mirador, and consolidation of the Mirador region under a unified El Mirador state (possible ancestors of the Classic period "*Kan* State")
6. Postulated extension of paramount El Mirador ruler's authority over unknown number of smaller lowland states (hierarchy of Late Preclassic lowland kings headed by ruler of El Mirador).

Terminal Preclassic

1. Decline or collapse of Kaminaljuyu and other closely allied states in highlands, southeast region, and portions of coastal plain (possible incursions at Kaminaljuyu from central Maya highlands)
2. Collapse of El Mirador and allied lowland states (resource depletion, overpopulation, and related problems in the Mirador region and perhaps elsewhere)
3. Revival of states at surviving lowland capitals (Tikal re-founded ca. 100 CE by Yax Ehb Xook, possible ties to Kaminaljuyu) and founding of new capitals by remnants of Kan and other Preclassic dynasties; stage set for expansion of system of states in the Classic period.

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Maya States: The Theoretical Background in Historical Overview

ASTRID RUNGGALDIER AND NORMAN HAMMOND

For most of the 150-year history of Maya archaeology, the conception of the "Maya state" used that term, if at all, to mean simply a polity. The state (versus the individual, as an anonymous mechanism of government) and the state (as the upper end of the band-tribe-chiefdom-state continuum envisaged by Service [1962, 1975]) only manifested themselves in Mayanists' thoughts in the past half-century. Also, for the first century or so the state and the city were synonymous: little was known of Maya culture outside the ceremonial centers or civic cores until rural and suburban settlement patterns were investigated in the 1950s. In this regard, Willey's Belize Valley project of 1953–56 and the University of Pennsylvania's Tikal Project, beginning in 1958, sparked a basic shift in perspective as to what constituted a Maya polity.

The present volume is primarily concerned with the origins of Maya states before the Classic period, known from both archaeology and epigraphy in the Maya lowlands as a diverse set of separate yet interdependent polities. The following overview is meant to highlight some of the literature that has contributed to the extant models of Maya states over the last half-century, as available at the time of the 2007 symposium. The two developments that underpin Maya state models are the study of settlement patterns and the decipherment of Maya hieroglyphic texts. Both of these lines of inquiry address common issues, combining archaeology and epigraphy, in particular in terms of scale—identifying the extent of Maya polities—and in terms of urbanism—distinguishing density and function in cities.

Overall, Maya state models were developed on the basis of evidence from the Classic period and sought to describe and characterize the nature of statehood, rather than offer an explanatory mechanism of formation. In other words, Maya state models are not about state formation, but rather about state characterization. As such they are not concerned with factors that can be considered movers of state development, but rather with understanding the nature of Maya states in their most unequivocal form, that of the Late Classic period. These descriptive rather than explanatory models are in part attributable to two factors related to chronology: the substantial role in envisioning Maya states played by hieroglyphic texts, which elucidate the political arena of the dynastic Classic period but not of earlier forms of kingship; and the fact that the Preclassic period was largely unknown until the 1970s. Thus, the pursuit of epigraphy and the study of the rise of Maya civilization followed parallel trajectories over the last thirty years. The resulting knowledge about the nature of relationships among Maya polities, and the accumulated evidence for sophisticated sociopolitical developments in the Preclassic period are creating the opportunity for discussion of Maya statehood in the context of Preclassic times.

Initially, two kinds of evidence were obvious as indicating ancient Maya governance: the ruins themselves, exhibiting the results of collective action under a central will, and the carved and inscribed monuments, which even before decipherment were understood to portray elite hierophants. The relative ranking of cities was predicated by Morley (1946) on the bulk and the beauty of the known remains, so Tikal and Copan, Uxmal and Chichén Itzá were seen as co-equal "metropolises" in the highest rank. Calakmul was a tier below and equal with Quirigua as "cities," while Izamal, Seibal, and La Milpa were all "large towns" on the third level. Dzibilchaltun, a "small town," was at the lowest level, and Caracol, although first explored in 1938, was not mentioned at all (Morley 1946: Plate 19). The cities of the south were in the "Old Empire," those of Yucatan in the "New Empire," but Morley envisaged neither emperor nor really, therefore, an imperium: Caldwell's later term "interaction sphere" was much closer to what Morley meant. Morley was aware of hierarchical relationships and variable histories, making this explicit in his discussion (1946:340) of the Cobá-Yaxuna sacbe. He used the number of stelae as a secondary indicator of hierarchy—Calakmul's rank was based on its 104 known monuments, not the size of its architecture: it was only after 1960, when the combination of known historical content in the texts (Proskouriakoff 1960) and the political geography adumbrated by the distribution of Emblem Glyphs (Berlin 1958a) made it possible that emic rather than etic hierarchies could be proposed.

THE MAYA CASE IN MESOAMERICA: ISSUES OF SCALE AND DIVERSITY

State formation models have often been dependent on definitions of state size. The 'size' variable has great implications for the type of state model it engenders, along with correlate political and economic organization. The implications are not just in the broad schema of territorial states as opposed to city-states, but also in the subtler differences between regional and segmentary states, both of which in the Maya case represent formulations of city-state models, varying in the individual polities' degree of control over territory and over other polities.

Consequently, the definition of state size as a unit of analysis for the formulation of models of state formation is itself dependent on the definition of state, whether a city-state or a regional state, with all the permutations in between the two ends of the spectrum. Some of the terms that have been used over the years by scholars describing Mesoamerican states have included: empire, regional state, segmentary state, city-state, polity, kingdom, realm, and regal-ritual center.

The first term, while applicable in the case of the Aztec (and perhaps the Zapotec?), is the only one in the previous list that Mayanists agree is not applicable to Maya states at any point in time. An exception can be made for the use of the term "empire" in the early history of Maya archaeology (Morley 1946), when discussion of state formation had yet to become a matter of investigation. All other terms have been deemed appropriate at one point or another; in some cases, the same terms appealed to different Mayanists over a span of time, and in other cases different terms appealed to the same scholars at different points in time.

The range of options is a reflection of the range of diversity within Mesoamerican civilizations, which has contributed to the difficulty in finding agreement between Mesoamericanists on the nature, the timing, and the mechanism of the rise of states. While the differences between Mesoamerican cultures are highlighted by the unique trajectories resulting from the combination of individual culture histories and different environments, scholars, especially those with experience in more than one Mesoamerican culture area, have attempted to generate or apply models that explain the occurrence of state-level complexity in broad terms applicable to Mesoamerica as a whole. Typically, however, the Maya area is singled out as an exception in the schemata of state models, and in some cases even Mayanists' egos are themselves accused of being the reason that the Maya area is the example that does not quite fit the rule:

> Four-tiered settlement hierarchies are extremely widespread among archaic states, a pattern that has escaped many Mayanists. There may be several reasons for their failure to recognize hierarchies. For instance, some Maya archaeologists are reluctant to see 'their' Tier 2 or Tier 3 site as subordinate to any other center, apparently resenting it if their site is considered anything less than a capital. Some Maya epigraphers, in addition, assume that if a site possessed its own emblem glyph it could not be hierarchically below any other site. Some have, as a result, proposed that the Maya area had as many as 80 (!) autonomous "capitals," each ruling a miniscule territory (Mathews 1985). I know of no archaic state that had such a nonhierarchical structure. (Flannery 1998:18)

In the wider Mesoamerican context, the discussion ranging from chiefdoms to empires is not limited to the variable of size and degree of urbanization, but comes with evolutionary implications. If we agree that the topic of state formation is one deeply entrenched in evolutionary theory (Trigger 2004), and we accept that Maya states rose out of earlier chiefdoms (whether or not we currently have broad archaeological evidence for those), then we have to consider the value of looking at Maya states not only in their initial developmental trajectory but also in later political manifestations towards the end of the Classic period.

A broad chronological approach to the topic of Maya states in terms of their rise as well as their dissolution suggests some considerations related to cross-cultural evolution: had a system of Maya states not collapsed, could it ever have approximated other Mesoamerican state models, or are we talking about intrinsically different systems within the same broad cultural interaction sphere? And if there is interaction between different culture areas, why are these not adopting similar state forms? What constitutes the underlying substrate of Maya civilization that makes states develop differently in the Maya region than in other Mesoamerican culture areas?

At the core of the problem of defining Maya states in the context of Mesoamerican political complexity is the fact that Mesoamerica represents an area of extreme variability and diversity (Sanders and Webster 1988; Demarest 1996; Sinopoli 2001; Sharer and Golden 2004). In addition to diversity of political forms, certain basic tenets that are taken for granted in the context of Old World state formation need discussion, such as the presence and degree of urbanism as an inalienable component of the state (Smith 1989; Stein 2001), or the now-dated argument deriving from Childe's criteria (1950) over whether primary state formation is necessarily accompanied by writing.

The study of state formation, characterized by investigating the development of large-size units as opposed to site-centered archaeology, is the direct outcome of settlement pattern studies, and thus a contribution from New World archaeology to a worldwide discussion (Willey 1953). At the same time, it is within New World archaeology that models of state formation are complicated by the lack of uniform traits among different civilizations, such as the adoption and use of writing, and degrees of urbanization.

CROSS-CULTURAL COMPARISONS, UNIVERSAL MODELS, AND POSTMODERN CAVEATS

In order to summarize the theoretical framework and to identify the pertinent boundaries of discussion for the rise of Maya states, an "intellectual history" of the models themselves can be useful for understanding the developmental trajectory and scope of the topic of complexity and state formation in the Mesoamerican context. Before attempting this historical journey, it might be worth noting that contemporary postmodern archaeological theory views state formation itself as a topic with its own history of debated value and relevance. According to Jansen, for example, when assessing the aims and attitudes of archaeology in relation to indigenous peoples—pertinent especially in the case of the Americas—the biases and agendas of the topic of "the state" become apparent. In this light the last half-century of the history of Mesoamerican archaeology has been a "biography of the state" as the "hallmark of civilization and progress" (Jansen 2004:240), often blind to the implications for nationalist ideologies. To indigenous peoples, who now have more direct involvement and participation in issues and theories concerning their past than ever before, the study of state formation may seem like a "hollow topic, of limited interest" (Jansen 2004:241).

With this in mind, it is worth appraising the current goals and purposes of addressing the nature and development of the Maya state, and whether they have changed over time. The concept today remains of considerable interest, because the variety of views on the issue indicates that the topic is far from being exhausted (Manzanilla 2001; Flannery 2006), but also because an updated view of Maya states will doubtless contribute to a broader discussion on the development of complexity by those interested in cross-cultural comparisons between early civilizations.

Only by considering Maya states through their long-term chronology, encompassing both the Preclassic and Classic periods, not as equivalent to two discrete stages of chiefdom and state but as two phases of a historical continuum, can we do justice to the culturally specific case of the Maya and transcend the danger of discussing states as empty abstract notions. Emphasizing the culturally specific could be the antidote to the taxonomic tendencies of neo-evolutionary theory, which measures the progression of societies through typological categories in a great chain from band to state, and in so doing creates a useless argument devoid of context and information on what people did and how they constructed their lives (Yoffee 2005). Specifically in the Maya case, Sharer and Golden (2004) argue for the necessity to recognize the considerable variability in the data pertaining to Maya polities in time and space, and against wholesale comparative models for political organizations that create grossly generalized cross-cultural parallels.

While drawing attention to the limitations of discussing states according to neo-evolutionism might appear to advocate a return to culture history, criticism of the study of the state is in fact meant to facilitate, not discourage, cross-cultural discussion, albeit with awareness of its potential dangers. While "holistic models derived from a culturally specific context should not be applied cross-culturally" because they establish false equivalencies, we should instead "apply specific attributes derived from culturally specific contexts" (Sharer and Golden 2004:42). This suggestion requires that we understand the historical particulars of the situations we wish to compare, and although our knowledge of Classic Maya political organization benefits from extensive archaeological and epigraphic evidence, we cannot discuss

Maya states without a broad perspective and the pertinent evidence both on their origins before the Classic period, and on their demise.

THE BACKGROUND: SETTLEMENT PATTERN STUDIES AND THE DISCOVERY OF PRECLASSIC MAYA CIVILIZATION

Among the far-reaching effects of the concept of settlement pattern studies (Willey 1953) is the notion that sites do not exist on their own as discrete units of analysis. The study of state formation thus arose from conceptualizing these patterns as systems of interrelated entities that can be characterized according to different forms of political organization, including those associated with state systems.

Also in the 1950s, Michael D. Coe (1957) published one of the first ethnographic comparisons between the Maya and tropical forest civilizations elsewhere, suggesting that they might be similarly organized into sacred cities supported by a rural hinterland. While this was a short publication, it contributed to the contemporaneously held notion that Maya cities were vacant ceremonial centers (Becker 1979), popular until the proof of historicity in Maya texts and the advent of fine-grained settlement mapping (Proskouriakoff 1960; Carr and Hazard 1961). It also foreshadowed a slightly different approach to the Maya city as ceremonial center, which became known as the regal-ritual model of the late 1980s (Sanders and Webster 1988). Most importantly, it provided a template for advancing Maya state formation models on the basis of analogical reasoning that became a standard feature of Mayanists' theories for the following half century.

While much has been written about the nature of the Maya political system and its permutations both through time and in kind, not many models *per se* have been proposed, and these generally cluster into conceptions of decentralized city-states or centralized regional states, with some combining the two.

In addition, in the Maya context these are generally models that describe the nature of the state and explain the ways in which it functioned in the Classic, or even the Postclassic period, but do not explain the process of state development. The reason for this apparent gap lies in the fact that in the 1960s, with the New Archaeology seeking to explain the mechanisms behind the transformations of chiefdoms into states and the material and ecological underpinnings of social change in central Mexico and Oaxaca (Sanders and Price 1968; Flannery 1972; Flannery and Marcus 1976a), Mayanists were just beginning to turn their interests towards the Preclassic period. In the Maya area the exploration of the rise of Maya civilization in the Preclassic became a focus of research in the early 1970s, but it was not then known that this equated with the rise of Maya states.

Willey's Belize Valley research (Willey et al. 1965) resulted in numerous other settlement pattern studies, as well as work in site centersar, and in the realization that long Preclassic occupations underlay many Classic sites. The SAR Advanced Seminar of 1974 on The Origins of Maya Civilization (Adams 1977) summarized evidence to date on the subject, and yet underscored the "yawning chasms in our knowledge of the Maya" (Pendergast 1984:232). At the time, however, Adams's volume was the first attempt to go beyond a description of the historical framework and to offer an explanation for "the appearance of Maya civilization" with a section on "Processes and Models" that took into consideration potential movers such as ecology, demography, warfare, and trade, not discounting external contact as the means of development of the Maya lowlands, but at the same time cautioning against the failure of models that rely on "outright diffusion or in influences thrust upon the Maya by contact with highly organized systems from more salubrious environments" (Adams and Culbert 1977:18).

The SAR volume was an exploration into the rise of Maya civilization, not the rise of Maya states, but it did suggest that some of the mechanisms considered could be "potentially applicable for anyone who feels that the Maya did reach statehood" (Adams and Culbert 1977:19). Such statements suggest a shared incredulity at the time for the eventual existence of Maya states, and in fact the final summary view by Willey (1977) characterized different periods in socio-cultural terms but never discussed statehood: Maya civilization through time evolved from Middle Preclassic egalitarian communities, putatively organized into what Ball suggested in that same volume to be a "segmentary tribal level of social organization" (Ball 1977:107), to a ranked society with the appearance of an elite class in "the Protoclassic Period," and ultimately to a "ruling aristocracy" (Willey 1977:387–94). Willey's "Overarching Model" was well aware of the limitations that the evidence then available imposed on explanatory models, admitting that his was "obviously a very 'historical' one" and that the overview of forces and factors still amounted to a "historical explanation—something that is decried by some as no explanation at all" (Willey 1977:421, 422). While today the evidence is less sparse, we still have not identified the causation factors of Maya state formation, although we have come to agree that Maya statehood did exist, and that "one needs to distinguish between Maya civilization (or Mesopotamian civilization) and Maya (or Mesopotamian) states" (Yoffee 2005:44).

While data were being carefully collected over the last 40 years on the early Maya, other publications of the 1970s were beginning to characterize Classic Maya sites through Central-Place Theory and other locational models in terms of their extent, their organization, and their political and economic strategies in relation to their resources (Hammond 1972a, 1974, 1975; Marcus 1973, 1976a; see also Flannery 1972). Unlike Hammond's, Marcus's approach involved epigraphy and cosmography in identifying Maya sites as ceremonial-civic centers in which one could observe that, "like other Mesoamerican states, the Maya state had a professional ruling class that had almost no bonds of kinship with the common people" (Marcus 1973:914).

Instead of the vague ceremonial-civic terminology, Hammond used the term "realm" with the intention of describing a polity with clear internal hierarchy (1975:134). Regardless of choice, with neither "city-state" nor "realm" was it necessary to define political power in terms of a specifically delimited territorial size and, as evidence continued to accumulate and fill out the picture of what Maya cities were like and how they operated, it became clear that supporters of different models of Maya states inevitably argued about size, and whether Maya states were represented by one city and its hinterland, or by several hierarchically organized cities and the land between them.

The term "realm" used by Hammond (1975) derives from the Latin *regere* "to rule" and *regimen* "government," and does not require a commitment to defining who ruled in what type of government, while at the same time implying the existence of a state; but it has not caught on as a descriptive term for Maya states, perhaps because of its other, more vague, meaning of "domain" or "region."

While the examples highlighted so far constitute the general backdrop for the theories on Maya states up through the 1970s, they are neither explanatory nor descriptive models. Starting in the 1980s and throughout the 1990s ideas on state formation, influenced by concurrent publications on the topic about other complex societies in the world (Price 1977; Renfrew 1982; Renfrew and Cherry 1986; Wright 1986), resulted in a vast range of literature, much of which had direct relevance for Maya states.

In general, two parallel lines of inquiry continued to develop out of the previous decades—the political institution of the state and the Preclassic period—and they have become fused together in recent years, now that the two subjects are more widely held by Mayanists to be the same field of inquiry.

SITES, CITIES, AND URBANISM

For the purposes of highlighting developments directly relevant here, we have selected for mention some of the contributions to the first subject, that of the nature of the state confined mostly to the Classic period, and a few to the subject of Preclassic societies and their development.

Despite the general agreement that the development of complex societies in Mesoamerica took place in the Middle and Late Preclassic (Grove 1981a; Kowalewski 1990; Fowler 1991), complexity is not synonymous with state-level society. Until the Late Preclassic period throughout Mesoamerica there were chiefdoms at varying levels of complexity, but no real states, according to Spencer and Redmond (2004). While the differences between complex chiefdoms and archaic states are a matter of lively debate (Blake 1991; Grove and Gillespie 1992; Clark and Blake 1994; Clark 1997; Feinman and Marcus 1998), it is in the arena of characterizing the nature of Classic Maya centers that state models are best observed.

During the 1980s and 1990s Mesoamericanists diversified their research into several lines of inquiry, asking questions about society and economy that could be addressed by, among other approaches, locational analysis, spatial patterns, settlement size and density, population demographics, and resource procurement and distribution, which in turn informed discussions on the nature of Maya sites.

Identifying and defining sites questioned the very nature of urbanism in Mesoamerica, and several studies established that Maya centers were large, complex, populated, dense, and heterogeneous enough to warrant calling them "cities." Among the innovative and influential publications in this group are Adams and Jones's "Spatial Patterns and Regional Growth Among Classic Maya Cities" (Adams and Jones 1981), Marcus's "On the

Nature of the Mesoamerican City" (Marcus 1983a), and Sanders and Webster's "The Mesoamerican Urban Tradition" (Sanders and Webster 1988).

In the first article, Adams and Jones decried the problem of scholars making generalizing statements about Maya centers without solid means of establishing the size and interrelationships between them. They offered as a solution the "systematic description and assessment of Maya cities" (Adams and Jones 1981:302; see also Turner, Turner, and Adams 1981) through courtyard group counts that allowed quantification and hierarchical ordering of sites in a dispersed pattern throughout the Maya area.

The solution seems relatively simple, but over thirty years have passed, and many of the disagreements among supporters of different Maya state models are still generated by the same problem: we cannot generalize what we do not know. Therefore, while our goal is to strive for a theoretical synthesis, we cannot skip ahead of the task of compiling a database of systematically collected evidence and description, accounting for such aspects as territorial extent, density, and hierarchical relationships. One of the problems with Maya state formation models thus far has been that scholars describe Maya states differently, and they do so because they view Maya cities differently.

The heated debates between opposing camps in identifying the nature of Maya statehood resulted by the late 1990s in a dichotomy between "centralists" and "decentralists" (Fox et al. 1996). At one end, the centralists may be described as those scholars who see Maya states as regional, unitary, bureaucratic entities held together by relationships of hierarchical administration as opposed to kinship. The decentralist camp clusters at the opposite end of the spectrum, preferring small entities equated with city-states or segmentary states, whose nuclei are formed by the palace-and-temple unit and whose political power is negotiated by lineage connections.

With the exception of Joyce Marcus's work suggesting a few large territorial units controlling all of the Maya lowlands (1976a) and Adams's (1986:437) reduction of the entire Maya lowlands to eight "regional states"—based on Copan, Tikal, Palenque, Yaxchilan, Calakmul, Rio Bec, Cobá, and the "Puuc-Chenes" region centered on Uxmal—the concept of the unitary regional state did not develop as a model proposed by Mayanists; rather, it formed as a response to disagreements with supporters of the varied manifestations of the segmentary model. The success of the latter can be linked directly to the two aforementioned publications of the 1980s on Mesoamerican urbanism (Marcus 1983a; Sanders and Webster 1988).

In her contribution, Marcus suggested that Richard Fox's Old World model (1977), including among others regal-ritual cities, could be applicable to cities such as Mitla (Marcus 1983a:208–9), and that religion could account for one of three aspects of city functions in various proportions, the other two being administration and craft production.

For Sanders and Webster, the aspect of craft production was not a driving force in their model, which saw Mesoamerican urban centers as part of "low-energy societies," geared towards consumption rather than production. On the other hand, Fox's (1977) functional typology that included five categories—regal-ritual, administrative, mercantile, colonial, and industrial—gave rise to what became the "regal-ritual model" of Maya cities (Sanders and Webster 1988:523–25). While this model is not a model of the Maya state *per se*, it is the basis of both segmentary state and galactic-polity models and all their permutations.

In their characterization of the Maya city, represented *pars pro toto* by Copan, Sanders and Webster were concerned with accounting for the dramatically diverse sizes of Mesoamerican cities through function, and did not further develop the concept of segmentary states proposed by Fox. Nevertheless, they did report that "Fox links the regal-ritual city to the political form he calls the segmentary state," and while admitting that Fox lumped Service's chiefdoms, Fried's ranked societies, and their own conception of the state into one category, they preferred to "restrict the definition of the segmentary state to those centralized political systems in which kinship still plays the dominant role in overall social and economic organization" (1988:528).

At the same time that Sanders and Webster formulated their view of Maya cities based on Richard Fox's model, John Fox (1987, 1988, 1989) was applying Southall's (1956) characterization of the African Alur segmentary lineage organization to the Maya area, in a return to using ethnography from outside Mesoamerica for comparative models, much as Coe (1957) had done with Khmer settlement patterns thirty years earlier.

While John Fox found application for Southall's study in explaining competition and unification among the Postclassic Maya, in particular the Quiché, Peter Dunham (1990) went on to apply the concept to lowland Maya political organization as a whole and to organize a conference on the topic at Cleveland State University in 1992 titled "The Segmentary State and the Classic Lowland Maya: A 'New' Model for Ancient Political Organization."

The latter, sadly, never resulted in a publication of the contributors' papers, but most of the participants had already been drawn to this model from a variety of perspectives, and they continued to conceive of and write about Maya political entities in terms of segmentary states, i.e., polities of small territory ruled by elites connected through kin relations that were too volatile and unstable to ever become large and centralized (Ball 1993; de Montmollin 1992; Demarest 1992a, 1996; Houston 1993, 1997; Ringle 1999). What is not clear is whether any of them regarded Maya sites as urban—preindustrial cities in function and in most aspects of form except population density—or whether they followed the Alur model (and the views of highland-based Mesoamericanists) and regarded Maya "cities" as low-density, low-diversity, civic nuclei amidst a populace lacking significant social layering.

THE STATE: KINGDOMS AND KINGSHIP IN HIEROGLYPHIC DECIPHERMENTS

Before continuing with the historical trajectory of theories on the Maya state in the 1990s, it is worth pointing out that several other contributions of the 1980s had a significant impact on the topic. By the time publications on the Maya multiply in the 1980s, it is clear that Maya scholarship had resulted in vibrant and prolific discussions on such a variety of approaches that it is increasingly difficult to separate strands and reconstruct how themes influenced each other in a unilineal fashion.

Among the most significant forward leaps in Maya scholarship, the achievements of epigraphic decipherments in the 1980s contributed a more humanistic approach to our view of the Maya, in contrast with the socioeconomic aims of processual studies, resulting in complementary conceptions for modeling Classic Maya state society. Epigraphy demonstrated that we could track the achievements of individual rulers and their relationships with each other, and that political events could not be disassociated from ritual practice. This realization had a profound effect on reintegrating cosmology and religion with views of the state and important factors in its formation. Among those to treat this topic explicitly were Michael Coe (1981a) and David Freidel (1981), who looked at state and ritual among the Maya, the Olmec, and Teotihuacan.

Inspired by the new views of Maya society that the Maya texts could bring about, archaeologists, art historians, and epigraphers produced an extensive literature, much of which was concerned with the state by way of analyzing kingship, royal ritual and sacrifice, the royal person, and the material symbols of prestige (Stuart 1984; Freidel 1986a; Schele and Miller 1986; Freidel and Schele 1988a; Schele and Freidel 1990).

In addition to the art-historical and epigraphic analysis of kingship, epigraphy played an instrumental role in the utilization of "emblem glyphs," first identified by Berlin (1958a) and then used by Barthel (1968), to suggest a hierarchical structure based on the notion that Copan Stela A and Seibal Stela 10 each named four (partly different) regional "capitals." Marcus (1973, 1976a) adopted the idea, and surmised correctly that Barthel's unnamed fourth capital alongside Copan, Tikal, and Palenque on Copan St. A was Calakmul. She then suggested a 'hierarchy of mentions' (our term) in which lower-order centers would mention the Emblem Glyphs of their superiors, but not vice-versa. Marcus applied Central-Place Theory (a technique designed for use in modern urbanized landscapes with developed communications) to construct hypothetical models, notably for Calakmul, in which many of the lower-order sites had to be assumed for lack of adequate surveys.

At the same time Hammond (1972a, 1974) took a different tack, using Thiessen polygons, which simply defined the territory closest to each assumed Late Classic polity center (using 83 centers claimed in the literature as "major ceremonial centers" on the basis of substantial and/or special-purpose architecture and/or inscribed monuments). The approach would define the likely core area under the polity's rule, "suggesting where evidence for natural or artificial frontiers may be sought" (1974:322), and attempted a best-fit with topographic data to sketch possible polity boundaries on a pragmatic basis. Hammond also took the view that in the absence of explicit evidence of hierarchy all centers should be treated as of equal political status, knowing that "this may not be so, indeed probably is not so" (1974:318) but that both the nature of the inequality and its permanence could not be established on then-available data.

A decade later, Mathews (1985: figs. 8–14) again used Thiessen polygons, now in combination with the distribution of Emblem Glyphs for Early Classic sites in the southern lowlands and the known periods of monument dedication, to produce successive period maps that showed the origins of monument dedication in the Tikal region and the rapid adoption of the practice southwestwards into the Usumacinta basin, then southeast into

Belize. Mathews, like Hammond, made the explicit assumption of co-equality of centers possessing the entry criterion, in this case an Emblem Glyph (EG), and the size and patterning of the polities he defined were remarkably similar to those Hammond had obtained using different criteria. Mathews's caveats on the likelihood of co-equality (1985:53–54) were less pessimistic than Hammond's, being based on more explicit dating evidence of contemporaneity or otherwise.

In both cases, a small-polity, if not quite "city-state" model emerged: Hammond's largest territories were around 1500 km^2, the smallest around 100 km^2, the mean (n=45) around 500 km^2 (Mathews did not use closed polygons nor calculate territory sizes). This in essence bore out Morley's and Thompson's long-held assumption that parallels with the city-states of the ancient Near East and Mediterranean were valid, while the likely population sizes within such states were similar to those proposed by Bray (1972) for central Mexican polities. Both studies produced an unrealistic landscape of independent polities, with the smallest territories clustered in the areas most densely populated with EG-using sites, notably in the northeastern Petén region where the earliest (and latest) uses of EGs were found.

While this approach continues to be criticized by Mesoamericanists focusing outside the Maya area, as well as by Mayanists who disagree with the decentralized states model, Mathews nevertheless had very clearly stated that Emblem Glyphs could not be the only line of evidence for reconstructing political boundaries (1985:33). Contrary to Berlin's view that they were place names, Mathews believed correctly that they represented the title for "lord," and suggested that the political office of ruling lords at different sites being equal, Maya polities reflected a network of independent states by the Early Classic period.

Today, identifying what Emblem Glyphs represent has become further complicated by the subtleties afforded by epigraphic research, which indicate that Emblem Glyphs were indeed titles: "Holy Lord of X," where "X" designated the polity. But there is now evidence of toponymic glyphs referring to a range of meanings for "place," from city-center names to polities with large hinterlands, specific places within sites, alternate names for polities, or even mythological place-names (Stuart and Houston 1994). What is clear from this more complex interpretation of location glyphs, including Emblem Glyphs, is that while they can inform us of Maya conceptions of place, they have become less instrumental for understanding state models.

Beyond the study of Emblem Glyphs, the advances brought forth in Maya polity analysis by integrating art history and epigraphy with archaeological questions became the subject of an SAR Advanced Seminar in 1986 on "Classic Maya Political History" (Culbert 1991a), with contributions on the extent of the Tikal state, the size and internal organization of Maya polities, and the dynamics of maintaining power relations between elites across the Maya area (Culbert 1991b; Hammond 1991a; Mathews 1991; Mathews and Willey 1991; Schele and Mathews 1991; Sharer 1991). In this volume, both cosmology and territory were recognized as significant aspects of the political panorama of the Classic period, a pairing that later constituted the basis of Marcus's (1992a, 1998a) "dynamic" model and its extensions, and also in Mathews and Willey's adumbration of the balloon-like expansion and deflation of Dos Pilas, the first inkling of a (temporary and rather small) "Maya superstate."

Hammond's (1991a: fig. 11.3) rather static typology of contrasting trajectories of polity-center (and arguably polity) florescence was less successful than Sharer's (1991: fig. 8.1, bottom) "spaghetti" (his *ad hoc* term) model of the non-coincident and overlapping rise and fall of different Maya polities. Marcus's similar 1992 model, based on territorial expansion through militarism, best describes the situation in Oaxaca and the rise of the Zapotec state of Monte Alban in the Late Preclassic, and, being essentially evolutionary in character, it sought pan-Mesoamerican regularities.

The idea combined the scenario of small city-states with that of large regional ones at different points in time in the same regions, suggesting that the overall trajectory could oscillate back and forth, with small states forming from the breakdown of the large unitary ones. This view implied that the existence of city-states, as in the Maya area, at any given time was the result of the dissolution of a previously centralized regional state. These contrasting models only made it more apparent that there was no single template for describing or understanding Maya states. Maya states were diverse in size and organization, in addition to representing individual historical trajectories (Marcus 1993; Sharer 1991).

While the agreement over Maya regional states is not widespread, Marcus's model incorporated dynamic processes that create an intellectually more complex and realistic view than static models can describe. However, despite suggesting a mechanism of change that accounted for opposing types of states, the dynamic model did not address the reasons for the transitions between centralizing and fragmenting forces. The model has found most acceptance among those whose work has focused on the largest of Maya sites, like Tikal, Calakmul, and Caracol.

The latter, investigated through the work of Arlen and Diane Chase, exemplifies the kind of Maya state that in the Chases' view extended regional control over other polities in the lowlands by means of territorial and political power independent of lineage relations, with the development of a "middle class" (Chase and Chase 1996). The disagreement over the role of kinship in Maya state formation developed in reaction to the regal-ritual urbanism model, which had generated divergent opinions both in the context of central Mexico and of the Maya (Smith 1989; Chase, Chase, and Haviland 1990). The debate ensued primarily because Sanders and Webster's view of ideology and ritual as manifestations of political power (Sanders and Webster 1988:528) was taken as an explanatory model for the rise of states that denied the economic powers of cities.

By extension, while economic gain was emphasized as a driving force in the rise of the state, the role of lineages was called into question in the context of sites like Tikal and Caracol where, by Classic times, populations were dense and socially stratified, organized into economically diverse specialization classes, and connected by bureaucratic rather than kinship-based ties. Lineages were described as such a fundamental aspect of segmentary states, in spite of Dunham's and Mathews's warning that they need not be (1992:1), that scholars who did not agree with such a view of Maya society felt it necessary to reject the entire segmentary state model (Chase and Chase 1996:803–4; Haviland 1997:444). Consequently, a "centralist" camp was created for those who disagreed with the segmentary state model (Fox et al. 1996:797–98), giving the impression that Mayanists had developed opposite competing models of the state, while instead an explicit model of the unitary, bureaucratic, and centralized Maya state has yet to be formulated.

The incorporation of evidence resulting from the decipherments of the 1980s into discussions of Maya state models produced a general tendency to polarize the argument into two groups: those who focused on epigraphy and viewed Maya states as weak kingdoms rendered unstable by ritual warfare and dynastic concerns, and those who focused on massive public works and monumental architecture and saw these as evidence for far-reaching centralized control. Martin and Grube (1995:42) and Iannone (2002:69) noticed the pattern; the latter further suggested that "decentralized" models derive from ethnographic data and are essentially deductive, while "centralized" constructs, in relying on archaeological data, allow for inductive model building.

Martin and Grube, however, had not seen a need for such opposing views, and suggested that a closer reading of the titles of lords and of accession texts provided evidence for a hierarchy between states. This in turn pointed to the occurrence of some polities controlling a number of other ones, with some, such as Calakmul and Tikal, consistently dominant over time—the "superstates." These dominant polities indicate a pattern of regional powers not unlike the organization of the Aztec empire into loose confederations (Martin and Grube 1995:46), but rather different from Marcus's dynamic model of regional states as territories headed by a capital polity and organized into ranked units administrated by the center.

The superstate approach attempted to bridge the two scenarios of multiple independent polities and of regional states, and clearly rejected the notion of two polarized views: "The picture that is emerging is neither one of a centralized administration of regional states nor one of a political vacuum populated by weak ones" (Martin and Grube 1995:46). Indeed, in bridging the peer polity and unitary state models, perhaps at the time it would have been clearer to have retained the pre-publication terminological choice of "superpower," as the authors intended (Martin 2007, pers. comm.), so as not to confuse the superstates with large territorial states. The authors did not believe these existed in the case of the Maya, which "were never politically unified" and struggled for dominance in a "turbulent landscape [where] no kingdom achieved a permanent hold on power" (Martin and Grube 2000:7).

In addition to decrying these needlessly polarized scenarios, Martin and Grube (1995) also blamed epigraphers for relying too heavily on the contents and themes of inscriptions when reconstructing the nature of Maya states, thus producing an overly decentralized picture of kingdoms concerned with ritual and cosmology, but not with pragmatic ambitions.

EPIGRAPHY AND ETHNOGRAPHY: THE INCORPORATION OF IDEOLOGY

Beyond investigating the role of kings and the size of their polities, the epigraphic advances of the 1980s are to be credited with allowing ideology, often expressed in ritually charged texts and monuments to individuals and political events, to be recognized as a significant component of Maya political discourse by more than just epigraphers.

Combining some of the approaches of epigraphy with the comparative framework of ethnological studies in Southeast Asia (Geertz 1973, 1980; Tambiah 1977; Fritz 1986), Demarest proposed a model of "pulsating galactic polities" that was meant as a response to archaeologists' views that were too evolutionary and dictated solely by ecology and economics (1992a). The model was the result of a 1987 seminar (Demarest and Conrad 1992) dedicated to addressing the power of ideology in state affairs beyond the context of Maya states alone, so that ideology could be the basis of explanatory models for a variety of state forms across all of Mesoamerica (Cowgill 1992; Freidel 1992; Grove and Gillespie 1992).

In the case of the Maya, states were independent political entities, dependent on shared ideological sources of power. The latter are exemplified by archaeological as well as epigraphic evidence: non-subsistence exchange systems of prestige goods, and inter-dynastic elite interaction that includes warfare for purposes other than territorial gain, such as marriage alliances and sacrificial victims. The resulting polities clustered into "galaxies" loosely headed by capitals that could effect strong control over allegiance and labor for public display of the rulers' powers, but were not concerned with local economies. Because their sources of power could not allow that kind of economic control, hegemonies fluctuated, or "pulsated," with regionalized histories, and could never grow stable enough to form a centralized state.

The emphasis on instability has been used to categorize the galactic polity as a variation of the segmentary state model, but one important difference exists: the galactic polity theory, while relying on shared ideology, did not require shared kin-relations (Demarest 1996:822), and thus freed the model from a dependence on lineage as a structuring aspect of the state. In addition, Demarest's construct effectively focused attention on the variability of the Maya data. In his argument, Demarest discussed variability in the form of heterogeneity through time and across space, but warned that variability alone should not be construed by Mayanists as evidence of discordant models. Rather, the range of political forms indicated periods of experimentation at particular times, such as the "transition to statehood and shift in political ideology at the end of the Preclassic" (1996:821–22).

This view of the rise of states emphasizing ideology as political legitimation of power also denies warfare as the mechanism behind the rise of states in the Maya area. In particular, conflict is seen as an unlikely mover of state formation for Maya civilization because epigraphic and archaeological evidence date warfare to the Classic period, which is much too late to account for events of the Preclassic period. This argument, of course, treats absence of evidence—the lack of Preclassic texts about conflict—as evidence of absence, and ignores such contrary archaeological evidence as the massive and apparently Terminal Preclassic moat around Becan (Webster 1974). In Demarest's opinion the focus of the 1960s and 1970s on materialist explanations had missed the point and had characterized the development of the Maya state as an argument restricted to demographic pressures: "the Maya lowlanders were believed to have bred themselves into an ecological crisis leading to state formation" (1992a:281).

THE DAWN OF PRECLASSIC MAYA STATE FORMATION

While archaeologists, starting in the 1970s and throughout the 1980s, were busy creating a corpus of information on the identification, settlement patterns, chronology, subsistence, religious beliefs, mortuary practices, households, and public works of Preclassic Maya sites, some indications existed of just how large a scale and complexity certain sites achieved before the Classic period. As far back as the early 1960s, William R. Coe had drawn attention to the long Preclassic occupations of Tikal and Uaxactun, and suggested that the massive construction efforts of Preclassic times made the site center of Tikal in this time period just as extensive as its Classic period counterpart (W. Coe 1962a, 1962b, 1965a).

When information about the site of El Mirador began to circulate it became clear that the achievements of Tikal in the Preclassic period were not an isolated occurrence, and that enormous construction and elaborate hydraulic systems such as those of El Mirador and Edzna might warrant calling them Preclassic states (Matheny, Hansen, and Gurr 1980; Dahlin 1984; Matheny 1986a). Today the notion that the Late Preclassic was the time of state formation in the Maya area as well as in other cultural zones of Mesoamerica is not a contested issue (Demarest 1992a; Feinman and Marcus 1998; Schele 2000; Marcus 2003; Spencer and Redmond 2004; Guderjan 2004).

Still, the bulk of publications to date pertaining to Maya states have concentrated on the Classic period. While archaeological and ethnohistorical data, as well as anthropological analogies, have informed the models proposed thus far—the segmentary state and its variants, the dynamic model, and the less explicit unitary state model—the impetus for these discussions owes much to advances in deciphering the political records of the Maya, highlighted by the close correspondence in publication dates between new epigraphic readings and inferences on the nature of polity interactions. In fact, Grube considers hieroglyphic writing "our principal source for the investigation of the Maya states," and, citing scarcity of written records for both the Preclassic and Postclassic periods, suggests that while "the institution of statehood was in no way limited to the Classic period," scholarly discussion is limited to this period by the nature and availability of sources (Grube 2000:547).

Also, the bulk of publications on comparative state formation have often bypassed the case of the Maya in favor of other examples from Mesoamerica: a case in point was the publication of the volume *Archaic States* (Feinman and Marcus 1998). Dominated by examples from Mesoamerica, city-states such as those of the Maya were not considered true examples of long-lasting early state forms; rather these were to be understood as transitional positions in the formation and dissolution of the unitary state, which apparently was to be understood as the initial form of all archaic, or preindustrial, states (Feinman and Marcus 1998). The state formation model most forcefully presented in that volume was an elaboration of Marcus's dynamic model (1992a), which described not only the oscillations between unitary states and city-states over time, but the initial state consolidation in the form of a large territorial unit, evolved out of competing chiefdoms and different from them essentially only in terms of scale, identifiable in a change from a 3-tier to 4-tier hierarchy (Marcus and Feinman 1998; Flannery 1998). Warfare, or any form of endemic conflict, represents the prime mover in the development of simple chiefdoms as in the "chiefly cycling" of complex chiefdoms into states (Flannery 1999). It is interesting then to wonder whether the inclusion of the only example from the Maya area—the last chapter in *Archaic States* on the comparison between Maya and Polynesian warfare by David Webster (1998)—was meant to underscore the military component of early states, and at the same time justify their city-state form as a transitory consequence of rivalry and conflict.

There are many aspects of that volume that make it an important publication for cross-cultural studies of early states, not least the fact that it created a common realm of discussion for the definitions and terms used by scholars of different areas; yet, it has remained outside the realm of Mayanists' discussion of state formation, most likely because it treated Maya city-states as epiphenomenal. That the first archaic states were large unitary entities with an administrative hierarchy almost makes the concept of city-states a misnomer. They have to be explained away in one of two ways: either as the breakdown of the larger unitary state, or as a landscape of long-term autonomous political units, which in turn makes them chiefdoms. This characterization of Maya political organization is an inadequate evaluation of the extant data, especially when it is presented in a cross-cultural forum. In fact, it has not gone unnoticed that the editors' presentation of the concept of city-state is too vague and generalized to account for other city-state scenarios such as that of Mesopotamia, and that the envisioning of the first states as unitary has to be evaluated with skepticism (Adams 2000:188–89).

Perhaps the time has come to question whether the extant models for the Maya state can be updated with the wealth of information that has accumulated about the Late Preclassic in recent years. It is no simple task, and plenty of questions immediately arise from considering the debates over Classic states in the context of the Preclassic period. Some of the questions that could generate new thoughts on Maya states follow.

Did Maya states begin as small city-states vying for territorial gain or for political power through the establishment of shared ideologies? Or did they begin as regional states when a dominant chiefdom-level power gained control over their neighbors?

Are Late Classic city-states the result of the breakdown of Late Preclassic unitary centralized states? Do the Late Classic states reflect a segmentary nature because of the proliferation of elites with claims to power resulting in a "balkanization" of the lowlands, leading, together with other factors, to the collapse? Or were Maya states always intrinsically segmentary as far back as their Preclassic origins because of the particular sources of power of Maya kingship?

Was the institution of a shared Maya concept of divine kingship the initial development in the rise of states? What role, if any, do lineage and kinship play in the development of such an institution?

How much of the nature of Maya states that warrants claims to differences from other Mesoamerican states is the result of differences in the socioeconomic underpinnings of Maya culture? Or is the wide variety of state forms in Mesoamerica to be explained by ideological differences that were present from the initial development of the separate cultures?

A definite advantage to discovering the deep history of Maya civilization in the Preclassic period is the realization that while the above questions will be the source of renewed debates, the period of Maya state formation coincides with that of state formation across Mesoamerica, in the Valley of Mexico, Oaxaca, and perhaps the Olmec heartland, if states there are of "La Venta" rather than "San Lorenzo" age (Clark 2007a). A broader alignment of theories on the Maya state will also broaden the argument beyond the scope of the Classic period and into the realm of cross-cultural discussions on state formation, where the case of the Maya is still limited and underrepresented (see Trigger 2004; Yoffee 2005). Comparisons between early states rarely omit to mention Mesoamerica, yet at the same time discussion is limited to a few and generalized considerations that vary broadly across time, space, or civilization, often employing *ad hoc* examples (Teotihuacan for urbanization, the Olmec for early complexity, the Maya for city-state networks, the Late Classic Maya for collapse, etc.) while conveying the sense that Mesoamericanists are in agreement on the characterization of such examples, and that Mayanists might uniformly describe Maya polities as "our clearest examples" (Yoffee 2005:49) of the earliest city-states. More interesting would be to recognize the variability, not only in the evidence from Mesoamerica, but also in the socio-cultural characterizations employed by Mesoamericanists. This would ground cross-cultural comparisons in the realities perceived by the specialists in each culture area, rather than establish universal trajectories as based on homogenized packages of notions from each of those areas.

In the context of urbanism models and political structure, Webster and Sanders (2001) reconsidered their regal-ritual model as the precursor of the current views on palaces and royal courts embodying the physical and symbolic capitals of Maya states (Grube 2000; Inomata and Houston 2001a, 2001b). The most recent research in the Maya area related to statehood is fruitfully incorporating revised versions of Geertz's (1980) theater-states concept into a better understanding of how Maya states operated as political theaters using ritual, performance, and the design of public space as tools of integration between political control and the maintenance of shared ideologies (Inomata 2001, 2006a, 2006b). Rather than a direct equivalence between

Bali and the Maya, this comparison of components of the Balinese theater state is an example of what Sharer and Golden (2004) advocated as fruitful cross-cultural discussion of state models based on their attributes. This type of selection based on the knowledge of culturally specific contexts leads to cultures understood on their own terms and not as ideal types classified into discrete stages. Such models allow the integration of Maya data into theoretical discussions about the origins and nature of political systems and, more generally, socio-cultural complexity without obscuring either the diversity or unique characteristics of Maya states (Marcus 1993; Sharer 1991).

Historical context also allows Mayanists to overcome the polarization that has resulted in the two apparently separate camps, precisely because of the application of cross-cultural models together with all of their components. Supporters of the scenario of "weak states" are often associated with the notion of segmentary states and therefore with power inalienable from kinship ties, or with the notion of galactic and theater states that rely on the control of people and labor rather than territory; in contrast, "centralists," who argue for states that are concerned with territorial control, must therefore support the notion that unified, strong states are represented by bureaucratic institutions that transcend lineage. Neither of these two characterizations is accurate when applied to the Maya; perhaps the simple consideration of culturally and historically specific situations—that, for example, Maya warfare between polities was not just about ideology but also about territory (Sharer and Golden 2004:29)—characterizes Classic Maya states as somewhere between galactic/theater states with authority over people, and unitary states controlling territory: decentralized city-states whose power source lay beyond lineage, relied on control of people and labor, and placed importance on territoriality, *inter alia* as a means of extracting tribute in both labor and material resources.

Recent research also broadens our understanding of the anthropological underpinnings of Maya kinship ties in relation to the centralizing powers of the institution of kingship (McAnany 1995:131–56), and suggests that these very tensions lie at the base of Maya state formation (Iannone 2002). Iannone's study is also interesting as the first Maya application of the *Annales* approach long used in European archaeology by John Bintliff and Bernard Knapp, itself a kind of "dynamic model" based on long-term historical trends. We could do worse than utilize the concepts of *évenements*, *conjunctures*, and *longue durée* in thinking about the rise of Maya states.

Concepts that acknowledge the ideological power of Maya ritual display and practices as political tools are applicable to the context of Preclassic Maya polities. The evidence from this period provides the basis for new theories incorporating aspects of the existing models, whether centralized or decentralized, bureaucratic and economically based, or related to lineage and ideologically based. It also provides an opportunity to approach the Maya state without static paradigms and polarized dichotomies, in favor of a more comprehensive view that accounts for the uniqueness of Maya statehood as well as its connections with other Mesoamerican Preclassic states.

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3

Preclassic Central Mexico: The Uncertain Pathway from Tlatilco to Teotihuacan

DAVID C. GROVE

The Basin of Mexico, in Mexico's central highlands, was the location of one of Mesoamerica's greatest Classic period cities, Teotihuacan. Teotihuacan was also one of Mesoamerica's earliest state-level societies, and until recently many scholars assumed that Teotihuacan-Maya interactions played a significant role in the origin of Maya states (see Braswell 2003a). In spite of the importance of Teotihuacan—one of the largest cities in the world for its time—its origins nevertheless remain little understood, thus raising numerous questions. For example, how much of Teotihuacan's origins were linked to previous Preclassic developments in the Basin and adjacent areas? Did the region's contacts with distant societies such as the Olmec play any role? In this chapter I review and evaluate the evidence in the central Mexican archaeological record for the Early, Middle, and Late Preclassic periods in a search for answers. The paucity of data is frustrating; nevertheless, the results reveal early local precocity, intraregional social diversity, and both important continuities over time as well as significant disjunctions and shifting interregional interaction networks that have not been fully appreciated.

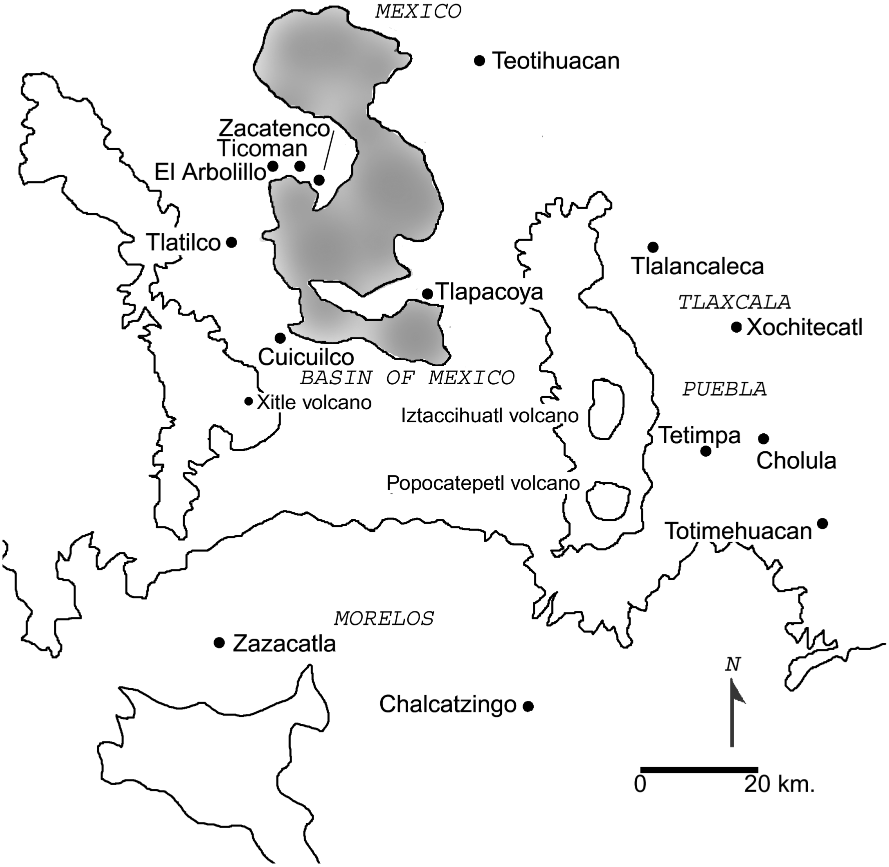
Archaeologists dealing with the question of the origins of Maya states and accustomed to working in the context of sites hidden beneath dense tropical vegetation might assume that archaeological knowledge of state origins in the Basin of Mexico, with its more open and accessible landscape, is better understood. They would be mistaken. Rather than dense vegetation, the floor of the Basin is instead obscured by a built environment of paved streets, apartment complexes, and office towers. The Basin is the location of Mexico City, and the rapid expansion of urbanization across that area over the past seven decades has always greatly outpaced and overwhelmed any attempts at doing archaeology there. As a result, scholars studying the Preclassic today are forced to rely heavily on limited data that in many instances were obtained in excavations carried out over seventy-five years ago (e.g., Vaillant 1930, 1931, 1935). Consequently quite significant gaps exist in the archaeological knowledge of the region.

In addition, until the commonly accepted and widely used Preclassic chronology of the Basin of Mexico/central Mexico was corrected by Tolstoy and Paradis (1970) and further refined by Niederberger (1987), the sequence was seriously flawed (e.g., Niederberger 2000:171–73), leading to the erroneous dating of sites and faulty interpretations. Although the sequence has now been nicely rectified, there are nevertheless occasions when ghosts of the obsolete chronology and interpretations seem to still haunt some perceptions about the central Mexican Preclassic.

The primary geographic focus of this chapter is the Basin of Mexico (the present-day Federal District and some portions of the state of Mexico), together with the state of Morelos to the south of the Basin (Fig. 3.1). The Preclassic period of these two areas of the central highlands has received more archaeological attention and therefore presents the best current picture of highland Preclassic cultural developments. Because of the lack of sufficient data, the states of Guerrero, Puebla, and Tlaxcala (Fig. 3.2) are only briefly discussed. In addition, because the rise of the Monte Alban state in the Valley of Oaxaca, 300 km to the south, presents a valuable comparative data set, the organizers of this volume have asked that Oaxaca also be briefly discussed in the summary portion of this chapter. Finally, no effort is made in the pages that follow to explain the rise of Teotihuacan. Instead this chapter focuses on the major Preclassic sites in the central highlands and any developments there that may have been relevant to the origins of Teotihuacan. It also points out some developments that might seem potentially significant, but ultimately were not.

THE CENTRAL MEXICAN LANDSCAPE

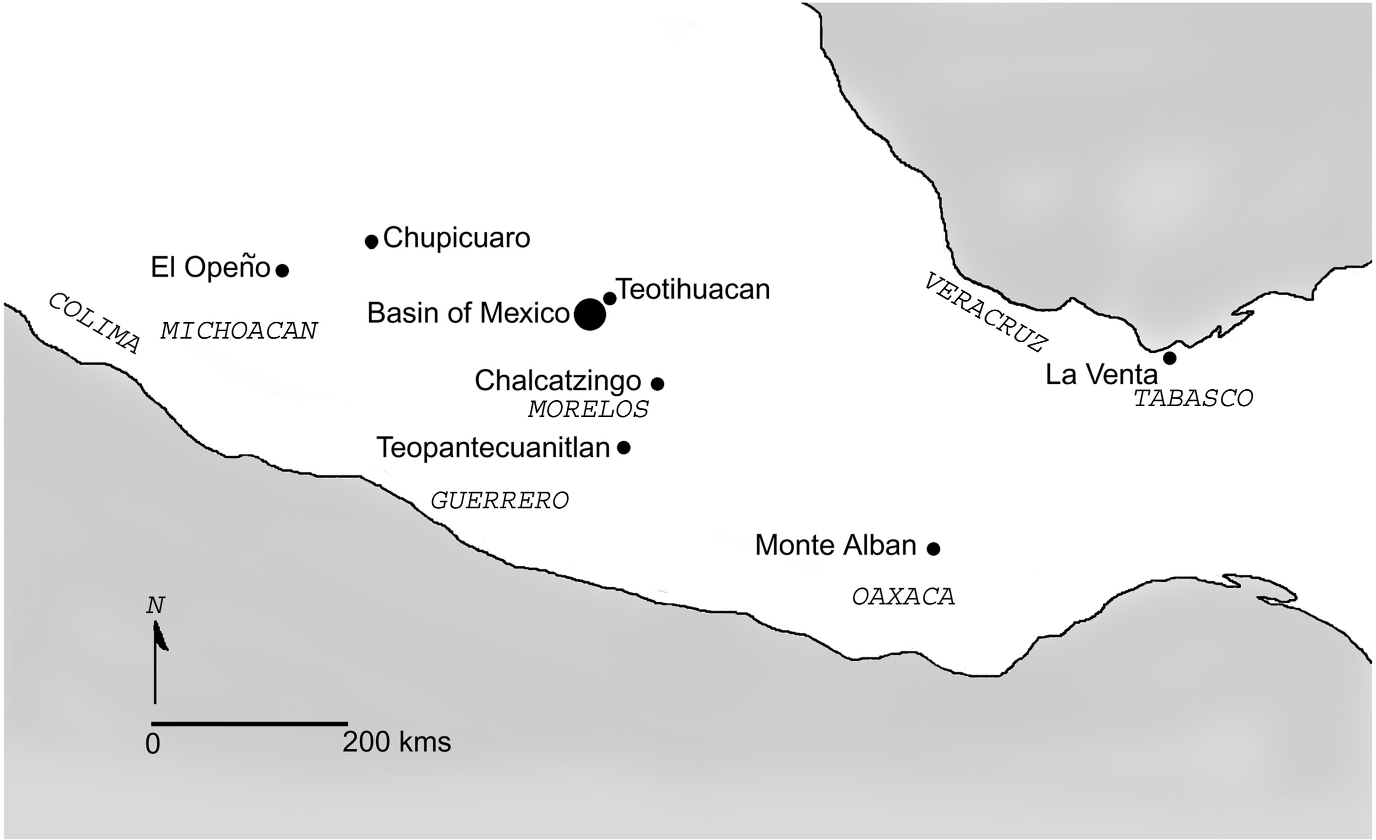
The central Mexican states of Morelos, Puebla, Tlaxcala, and Guerrero (Figs. 3.1, 3.2) are blessed with temperate to subtropical climates and fertile river valleys that provided excellent conditions for Preclassic farmers. Today their



3.1. Map of Central Mexican Preclassic period archaeological sites mentioned in this chapter.

village sites are abundant in those areas, although few have been seriously investigated. Preclassic villages likewise occurred in the Basin of Mexico, although its 2200 m elevation (7200 ft.) and colder climate presented somewhat greater risks for those early agriculturists. However, the risks of farming were perhaps off-set by the rich lacustrine resources provided by the lake system that dominated the Basin's floor. Interestingly, the Teotihuacan state developed in a more arid and marginal area of the northern Basin, approximately 20 km to the east of the lake.

Central Mexico is characterized by a great ecological diversity and geological complexity that produced an abundant and varied set of natural



3.2. Map of some of the major Preclassic period sites and states (in italics) mentioned in the chapter.

resources and materials which were exploited by its prehispanic populations, including those of the Preclassic. The uneven distribution of those resources, even within the same valley system, meant that individual villages frequently had access to very different resources and commodities than did their neighbors. Such differences underlay the exchange networks that developed to circulate commodities desired locally, regionally, and interregionally (e.g., Niederberger 2000:186–87; Sanders and Price 1968:188–94). Importantly, as will be mentioned several times in this chapter, those interregional interaction networks underwent reorganizations and major shifts in regional emphases over the span of the Preclassic.

THE EARLY PRECLASSIC (CA. 1400–900 BCE)

In the Basin of Mexico the Early Preclassic is known primarily from excavations at two sites, Tlatilco and Tlapacoya. Tlatilco, in the western Basin, is the most extensively excavated Early Preclassic site in central Mexico, and the site dominates discussions in the literature of the Preclassic in the Basin of Mexico. Tlatilco is often believed to have been a special settlement, unusually large for its time, and to have been a major center (e.g., Niederberger 1996:173–74). Tlapacoya, across the Basin on the southeastern lakeshore, lags far behind its western neighbor in fame. While the two sites provide the majority of the Early Preclassic period archaeological data for the Basin, their data sets are unfortunately difficult to compare. Furthermore, today the Tlatilco area lies beneath the high-rise office buildings and apartment complexes of western Mexico City; the archaeological site no longer exists. Most of the Tlapacoya area has suffered a similar fate.

Tlatilco came to light in the late 1930s when collectors, such as artists Diego Rivera and Miguel Covarrubias, began visiting brickyards in the vicinity of the village of San Luis Tlatilco to purchase ceramic vessels and figurines that were being found by brickyard workers during their clay mining operations. Those ceramic objects had been burial furniture associated with human skeletal remains. Covarrubias recognized the importance and antiquity of the graves being unearthed at Tlatilco, and he was largely responsible for initiating the first archaeological excavations there in 1942 (Covarrubias 1943). Additional excavations were occasionally carried out at Tlatilco until 1969 (García Moll et al. 1991:10–12; Ochoa Castillo 2003:17–22; Porter 1953:18). Those projects were dedicated to uncovering burials and were carried out on the remaining patches of land not yet destroyed by the expanding mining activities of the various brick yards. In addition, except for the publication by García Moll et alia (1991), most excavations there were poorly reported. It is therefore difficult to estimate the quantity of burials uncovered by official excavations and, of course, the brickyard workers' finds, but the number may exceed one thousand. No architecture, either domestic or public, was ever detected at Tlatilco, although Porter (1953:34) mentions that "steps and terraces can be seen in the profiles of fresh cuts," and Tolstoy (1989a:102, fig. 6.7) makes a strong case that the graves had been sub-floor interments in domestic structures.

In contrast, the Tlapacoya data base was obtained by research that was primarily aimed at refining the Preclassic stratigraphic sequence for the site and the Basin. The excavations at Tlapacoya (also known as Zohapilco) were quite successful in that goal and today provide much of the basic Early and Middle Preclassic chronological sequence for the Basin of Mexico (Niederberger 1976, 1987; see also Gámez Eternod 1993). However, no burial assemblages or architecture were recovered there. Furthermore, in my opinion, the ceramic assemblage of Tlapacoya (e.g., Niederberger 1976:109–232; 1987, 1996) appears to have some significant differences with the assemblage at Tlatilco in the western Basin. Thus, if Tlapacoya and Tlatilco are taken as representative of their respective areas of the Basin, the Early Preclassic "cultures" of the eastern and western Basin were somewhat different (e.g., Grove 2000b:133–34), and therefore their Preclassic developmental trajectories may have been different as well. However, we may never know because the Early and Middle Preclassic of the eastern Basin remains virtually unknown and the region is being rapidly engulfed by urban expansion.

There is another problem. Tlatilco has been privileged in the literature to the extent that developments elsewhere in the central highlands go unrecognized by many scholars. The state of Morelos, immediately to the south of the Basin of Mexico, is one of those areas often overlooked. For thirty years I have pointed out that the ceramic assemblage at Early Preclassic sites across all of Morelos is essentially identical to what was found at Tlatilco (Grove 1974b:3–4; 1981a:383; 2006, 2007b), and I continue to use the term "Tlatilco culture" to refer to that closely shared assemblage. Only a few Tlatilco culture sites are known in the western Basin, and I would not include the eastern Basin site of Tlapacoya as within the Tlatilco culture sphere. However, Tlatilco culture sites are abundant along the subtropical river valleys of Morelos.

The characteristics of Tlatilco culture ceramics in Morelos and the Basin include specular-red-on-brown vessels (usually bottles) that are frequently decorated in a smudge resist technique and a variety of exotic vessel forms in both specular-red-on-brown and brown wares, including tubular-spouted and stirrup-spouted bottles. A very minor part of the Tlatilco culture assemblage (<3–5%) consists of vessels decorated with "Olmec motifs." However, that minor percentage receives virtually 100 percent of the attention in publications and in interpretations concerning Early Preclassic central Mexico, its development, and its interactions. This is because of a sixty-year-old assumption that those motifs are somehow directly Olmec-related. In addition, some scholars still assert that the presence of the Olmec-like pottery in the highlands is "linked with the dissemination of the social, political, and religious institutions of the Olmec" (Blomster et al. 2005:1068). However, that hypothesis has never been adequately modeled for testing, and many scholars strongly disagree with it (e.g., Flannery et al. 2005). Nonetheless, the hypothesis is relevant to a question posed in the introduction to this chapter and paraphrased here: Did the central Mexican region's interactions with the Gulf coast Olmec introduce "social, political, and religious institutions" that persisted over time and were somehow relevant to regional highland developments that led ultimately to the Teotihuacan state? As is discussed below, Early, Middle, and Late Preclassic archaeological data offer no support for this suggestion.

Significantly, a few of the Tlatilco culture sites in Morelos contain public architecture, the earliest known in central Mexico. Public architecture is rare in Early Preclassic Mesoamerica, and therefore it is usually taken as an archaeological signature of complexity. Thus it is a trait I will follow in this chapter as I review Preclassic developments in Mexico's central highlands. One site with public architecture is Chalcatzingo, in the Amatzinac Valley of eastern Morelos. Although best known for its Middle Preclassic period bas-relief rock art, Chalcatzingo was also an important center during the Early Preclassic. At that time it manifested the standard Tlatilco culture ceramic assemblage, although the Olmec-like sherds made up less than one percent of the assemblage there.

Two examples of Early Preclassic platform mounds, one of which is stone-faced, were identified in excavations at the site (Avíles 2000; Prindiville and Grove 1987:63–65). Was that Early Preclassic architecture autochthonous, or could it somehow have been Olmec inspired? The latter hypothesis seems highly unlikely because nothing remotely comparable in the way of Early Preclassic stone-faced architecture has been found at Olmec sites (it does occur later at Middle Preclassic La Venta). Nor, in fact, has anything similar been published for Early Preclassic sites elsewhere in the central highlands of Mexico. Chalcatzingo's architecture is precocious and seems to have been a local innovation. The nearest similar architecture occurs at San José Mogote, Oaxaca (Structures 1 and 2; Marcus and Flannery 1996:109, fig. 113), but there is nothing in Chalcatzingo's Early Preclassic artifact record to link the site to Oaxaca.

With the above in mind, I question whether interregional interactions between the Morelos-Basin of Mexico region and other areas have been properly understood. Nobody doubts that there were two-way interregional interactions with the Gulf coast region (i.e., the Olmec) during the Early Preclassic. At a minimum, those interactions involved trade in obsidian, ceramics, and even bitumen (*chapapote*; Wendt and Lu 2006:92). However, central Mexico was involved in interactions with other regions as well, but those have frequently been overlooked by archaeologists with their gaze turned solely to the southeast. The vast majority of the decorated and exotic ceramics of the Tlatilco culture sphere suggest a much more significant and closer relationship with a very different area of Mesoamerica—West Mexico. The exotic bottle forms and specular red-on-brown ceramics of Tlatilco culture have strong similarities to the precocious Early Preclassic period ceramics and figurines of the Capacha complex of Colima, Michoacán, and Jalisco (Greengo and Meighan 1976; Kelly 1980), and more particularly with the ceramics of El Opeño, Michoacán (Oliveros 1974, 2004:76–111). Furthermore, 10% of the obsidian tested from Early Preclassic settlements in the Basin of Mexico was found to come from sources in Michoacán (Boksenbaum et al. 1987: table 3; Healan 1997: table 1). Those interactions with western Mexico cannot be disregarded in any serious consideration of the developments and interrelationships that took place in Early Preclassic central Mexico (see also Baus and Ochoa 1989; Grove 1974b:60; 2006:110–11; 2007b:219–20; Tolstoy 1971:26).

To summarize this section, I suggest that interpretations of the Early Preclassic of the Basin and Morelos have privileged Tlatilco as a site and have concurrently privileged the "Olmec-like" ceramics in the Tlatilco culture assemblage, thereby creating a distorted view of Early Preclassic developments in the highlands. Instead, the available data suggest to me that the major developments of the Early Preclassic in that region probably took place in the warmer subtropical landscape of Morelos rather than in the Basin of Mexico. Early Preclassic sites in Morelos seem to surpass those of the Basin in quantity and in architectural complexity as well. Furthermore, the overall interregional interaction patterns appear to have been focused westward toward Michoacán rather than in a southeastwardly (Gulf coast Olmec) direction. However, it is regrettable that data on the true nature of Tlatilco as a settlement are lacking. We will never know if it had been an unusually large mega-site, as often represented, or if instead the brickyard workers and archaeological projects there had actually uncovered the remains of perhaps three smaller, separate villages (Grove 1981a:382; 2006, 2007b:218–19). Those smaller settlements would be more in line with the size of Tlatilco culture sites in Morelos. However, due to the incomplete archaeological record in the Basin, there will always be uncertainty.

THE MIDDLE PRECLASSIC (CA. 900–500 BCE)

The Middle Preclassic across Mesoamerica can be described as a period of emerging elites and evolving complexity (e.g., Grove 2000b:137–39; Grove and Gillespie 1992:29–30). In central Mexico it is marked in the archaeological record by different pottery styles, a substantial increase in greenstone objects, and in a few areas, an increase in public architecture. In the Basin of Mexico and Morelos, the red-on-brown and exotic Tlatilco culture ceramics (including the <3–5% "Olmec-motif" vessels) gave way to a much plainer ceramic complex that includes white ware bowls with rims decorated with linear motifs (often lumped together under the rubric "double-line-break"). Figurine types also changed. Stratigraphic data from Tlapacoya (Niederberger 1976, 1987) inform us that the changes from Early to Middle Preclassic assemblages there occurred as a gradual transition. The same is probably true of the central highlands in general.

An important component in the material culture of the Middle Preclassic period is greenstone and jadeite jewelry and implements. Those objects include items of personal adornment, celts, and perforators. Such greenstone is found only rarely in Early Preclassic contexts, but it became more abundant in the Middle Preclassic as an "exotic" that generally seems to have been restricted to people of elite rank. The occurrence of greenstone and other exotics at central Mexican sites indicates the presence of new or restructured interregional exchange networks. The nearest good sources of quality greenstone occur in Guerrero (e.g., Mastache 1988:197), but it seems probable that some of the high quality greenstone found at central Mexican sites such as Chalcatzingo (Thomson 1987) may well have originated at sources in southern Mesoamerica.

Unfortunately, most of the areas in the western Basin of Mexico that would have been preferred by Preclassic agriculturalists have been covered by Mexico City and its suburbs, while the eastern Basin is underexplored yet rapidly urbanizing. Consequently, archaeological knowledge of the Middle Preclassic in the Basin still relies heavily on the data recovered by Vaillant's excavations at El Arbolillo and Zacatenco (Vaillant 1930, 1935) eight decades ago. Those data are somewhat supplemented by research in the southern Basin (Serra Puche 1988, 1989; Ramírez et al. 2000) and salvage archaeology (Castillo Mangas et al. 1993; Pulido Méndez et al. 1993; Sánchez Vásquez et al. 1993). Important supplementary data are provided by the surface survey projects conducted by Sanders, Parsons, and others (e.g., Sanders et al. 1979). However, many of those surveys were carried out before the Basin's Preclassic ceramic chronology was refined by Tolstoy and Paradis (1970) and by Niederberger (1987). The Basin surveys identified 8 large Middle Preclassic villages, 11 small villages, and 49 hamlets (Sanders et al. 1979:96). However, we will never know the quantity or complexity of the sites that had been destroyed by urbanization prior to those surveys. Nevertheless, with that caveat in mind, what are lacking in the available data from both survey and excavation are any clear markers of developing complexity, such as public architecture, one or more large central place settlements, or any other evidence of significant site hierarchies. Once again, those markers do occur in Morelos, as well as in the states of Guerrero and Tlaxcala.

While most known Middle Preclassic sites in Morelos and Guerrero are as undistinctive as their Basin counterparts, three stand out as extraordinary: Chalcatzingo; the newly discovered site of Zazacatla, Morelos; and Teopantecuanitlan, Guerrero. All three are atypical in two ways: they have abundant public (mound) architecture and sophisticated carved stone art. Their stone art clearly has some Olmec antecedents, but their architecture has no similarities to anything known on the Gulf coast and may represent indigenous central Mexican innovations. Be that as it may, once again the signs of complexity in the central Mexican highlands are found outside of the Basin rather than in the Basin itself. However, as will be discussed below, the possibility exists that such complexity may have been present at the problematic site of Cuicuilco in the southern Basin.

Chalcatzingo, in the Amatzinac Valley of eastern Morelos, was the valley's major Middle Preclassic center, at the top of a three-tiered site hierarchy (Hirth 1987a, 1987b). Chalcatzingo and at least three other Middle Preclassic Amatzinac Valley sites—Telixtac, Las Pilas, and Campana de Oro—are notable for having public architecture (Hirth 1987a:356; 1987b:510–11, 519; Majewski 1987).

Middle Preclassic Chalcatzingo was a dispersed settlement that spread across a wide terraced landscape (Grove 1984; Grove [ed.] 1987b). Dominating the village was a massive earthen platform mound, ca. 70 m long and over 7 m in height, the largest example of public architecture known in Middle Preclassic central Mexico. Significantly, the Middle Preclassic mound represents a series of rebuildings and enlargements of one of the site's Early Preclassic mounds, demonstrating a continuum of increasing complexity at Chalcatzingo. Three stone-faced Middle Preclassic platform mounds, with associated stone monuments, occur on separate terraces nearby, as does a large, stone-faced sunken patio containing an Olmec-style tabletop altar-throne (e.g., Fash 1987; Grove 1984:49–68; 2005; Prindiville and Grove 1987a:63–66). The altar-throne is just one example of the wide variety of stone monuments that occur at the site. Over 35 carvings have been found at Chalcatzingo (Grove 2005, 2007a:34; Grove and Angulo 1987; Córdova Tello and Meza Rodríguez 2007), a number exceeded in Middle Preclassic Mesoamerica only at La Venta. A few carvings at Chalcatzingo and La Venta share certain iconographic motifs (such as paired quetzal birds) that indicate a special relationship of some sort existed between the two centers (Grove 1989b:133–36). At the same time, however, other iconography in the monuments seems to be local, unique to Chalcatzingo.

Among the monuments at Chalcatzingo are a dozen stelae (both broken and complete; Grove 2005; Grove and Angulo 1987). This is the largest quantity of carved stelae known at any Middle Preclassic Mesoamerican site. One of those stelae (Monument 26) was found in association with a round altar (Monument 25) (Grove and Angulo 1987:128–29, figs. 9.23, 9.24), a pairing more common at Late Preclassic Izapa and Classic period lowland Maya sites. Although a series of plain stela–round altar pairs have been discovered at the Middle Preclassic (Las Charcas phase) site of Naranjo in the Maya highlands (see Love, this volume), the two Chalcatzingo monuments are the oldest carved stela–round altar combination presently known in Mesoamerica. They are examples of what I have called Chalcatzingo's "southern connection" (Grove 1989b:141–42), that is, objects and traits with similarities to those of southern Mesoamerica. A second example is the Maya-like scroll-and-mat design on Monument 34, a stela excavated in 1998 (Gillespie n.d.; Grove 2005:29–30). A third and different example is the Peralta Orange pottery type at Chalcatzingo. Peralta Orange is not a highland central Mexican ceramic type, and although locally manufactured at Chalcatzingo, its closest similarities seem to be with Mamom phase orange wares of the Maya lowlands and certain ceramic types of Chiapas and the Gulf coast (Cyphers 1987:231–34). These traits at Chalcatzingo suggest interactions with the south, but perhaps via networks that bypassed the Gulf coast Olmec (see also Pye and Gutiérrez 2007).

Guerrero's analogue to Chalcatzingo is the site of Teopantecuanitlan. Located approximately 80 mountainous kilometers south of Chalcatzingo, Teopantecuanitlan is situated at the junction of two of the major rivers that drain the central highlands, the Río Amacuzac and the Río Balsas. Teopantecuanitlan's Middle Preclassic architecture includes platform mounds with unusual stone-facing (Martínez Donjuán 1994: figs. 9.18, 9.19) and a large stone-faced sunken patio decorated with four monolithic Olmec-like faces carved in bas-relief (ibid., figs. 9.12–9.14). The site's location at the junction of two major riverine arteries is certainly not coincidental, and the center must have played a major role in regional and interregional exchange networks. Not only does Teopantecuanitlan provide evidence of interactions with Chalcatzingo via a limited set of architectural and iconographic motifs (Grove 1987a:429; 1989b:142–45), but two of Teopantecuanitlan's stone monuments—an Izapa-like frog "altar" and a large non-Olmec stone head similar to those from the Pacific piedmont of Guatemala (Martínez Donjuán 1994: figs. 9.16, 9.17)—suggest that a "southern connection" occurred there as well (see also Pye and Gutiérrez 2007).

The third site with public architecture and Olmec-like stone carvings is Zazacatla, in western Morelos about 15 km south of the city of Cuernavaca and 50 km to the west of Chalcatzingo. It is a recent discovery and was brought to light by salvage operations carried out prior to the construction of a large warehouse. Middle Preclassic platform mounds with Teopantecuanitlan-like stone facings were uncovered, but the biggest surprise was the discovery of two stone statues, each ca. 60 cm tall, and both strongly in the La Venta Olmec style (Canto Aguilar and Castro Mendoza 2007). The statues are quite different from those known at Chalcatzingo, and Zazacatla's ceramics are apparently somewhat different as well (Canto Aguilar, pers. comm., 2007).

In contrast to Morelos and northern Guerrero, the majority of the Basin of Mexico seems to lack any clear archaeological evidence of complexity during the Middle Preclassic. However, a major unresolved question concerns the nature of the Basin site of Cuicuilco. Cuicuilco is situated on what once was the largest expanse of good agricultural land in the southern Basin, and by 200 BCE it may have been the largest Late Preclassic center in the Basin/Morelos region of the highlands. The site, with an immense circular pyramid ca. 80 m in diameter and over 20 m in height, covered perhaps 400 ha and could have had a population of 20,000 (Sanders et al. 1979:99).

Late Preclassic Cuicuilco is thought by many to have been central Mexico's first major urban center. However, while seemingly at its prime, Cuicuilco was devastated by a massive lava flow emanating from the Xitle volcano, a mere 7 km to the south. A thick mantle of lava covered most of the site, leaving only the top of the circular pyramid exposed. Today that cap of lava thwarts any serious attempts at archaeological research to understand the size, nature, and time depth of the site, thus rendering Cuicuilco enigmatic in many ways.

Was there a significant settlement at Cuicuilco also during the Middle Preclassic? That question is highly pertinent to any consideration of developing complexity in the Basin, and the answer has been elusive. In 1957 Robert Heizer and James Bennyhoff worked for about a month at a modern lava quarry at Cuicuilco (Heizer and Bennyhoff 1958, 1972). Their investigations recovered some Middle Preclassic ceramics and noted evidence of buried structures, including clay-surfaced earthen platforms which they believed dated to the Middle Preclassic. From their investigations they proposed that Cuicuilco had been a "major ceremonial center" at that time and that the "basal platform" of the circular pyramid dated to that period (Heizer and Bennyhoff 1972:98). That is an intriguing possibility, but no supporting data were ever published and for three decades the Heizer and Bennyhoff proposition remained unverified.

However, a recent general article on the site by archaeologist Mario Pérez Campa (2007), who has been investigating Cuicuilco and its massive circular pyramid, seems to confirm that the pyramid's initial stages do indeed date to the Middle Preclassic (Pérez Campa 2007:42; see also Pastrana 1997). Therefore, although the supporting data remain to be published, it may be the case that Cuicuilco, in the southern Basin, had attained a level of complexity during the Middle Preclassic that is not presently evident in the archaeological record elsewhere in the Basin. Of course, that raises new questions. If Cuicuilco had indeed been a significant center during the Middle Preclassic, what relationship and interactions, if any, did it have with the important sites of Chalcatzingo, Zazacatla, or Teopantecuanitlan? Only excavations at Cuicuilco can begin to provide answers.

In summarizing the Middle Preclassic it should be noted that one of the most significant aspects of the Middle Preclassic archaeological record of the Basin of Mexico and Morelos is the disappearance of the strong interactions with western Mexico that characterized the Early Preclassic. With the Middle Preclassic there seems to have been a marked shift to a pattern that strongly emphasized interactions with southern Mesoamerica and the Gulf coast. However, that southern emphasis seems to end ca. 500 BCE, as Chalcatzingo and Teopantecuanitlan (and presumably Zazacatla) faded away and were replaced by other sites in their regions that rose to the status of centers. Was their demise somehow related to the decline of La Venta (also poorly understood) and its interaction networks, or merely reflective of the general changes that were sweeping non-Maya Mesoamerica; or were all those changes somehow related?

Whatever the cause, the outcome was significant, for with the end of Chalcatzingo and Teopantecuanitlan, the creation of stone monuments and the use of Olmec-like iconography and the various traits related to a "southern connection" likewise disappeared in central Mexico. Unlike the situation on Mesoamerica's southern Pacific coast (e.g., Izapa, Takalik Abaj), no Late Preclassic heritage of monumental art continued in central Mexico. In other words, it appears that Chalcatzingo, Teopantecuanitlan, and Zazacatla left no "Olmec legacy" for central Mexico's Late Preclassic societies. Their Gulf coast and southern connections were ultimately quite ephemeral.

Significantly, Cuicuilco, in the southern Basin of Mexico, did not decline but continued as a settlement and flourished. That fact suggests that perhaps Middle Preclassic Cuicuilco had not participated significantly in the interaction networks that had linked Morelos and Guerrero with southern Mesoamerica and the Olmec domain.

THE LATE PRECLASSIC (CA. 500 BCE–100 CE)

The Late Preclassic is probably the least understood period in central Mexico, and yet it is obviously also the most crucial in terms of understanding the origins of states there. In central Mexico, and Mesoamerica in general, the Late Preclassic begins ca. 500 BCE and is characterized by a substantial restructuring of regional political organizations, site hierarchies, and interaction networks. New centers rose to prominence, and there was a significant nucleation of population around those centers. Pyramid architecture became abundant, and new pottery and figurine types appeared. In the Basin of Mexico and Morelos the ceramics once again show strong similarities to ceramic complexes to the northwest, and in particular with the Chupicuaro phenomenon of eastern Michoacán and western Guanajuato. In addition, whereas for the Early and Middle Preclassic the best evidence of the trajectory of increasing complexity is found outside of the Basin, the opposite is true of the Late Preclassic. At that time the Basin became a major focal point for developing complexity, as seen at Cuicuilco and somewhat later at Teotihuacan.

Although the site of Cuicuilco is covered by a thick cap of lava, enough is known about its Late Preclassic manifestation to confirm that early in that period Cuicuilco was already a proto-urban settlement and probably the largest center in the Basin. In addition to the site's huge circular pyramid, several other large Late Preclassic rectangular pyramid structures were exposed in 1968 when a large area of lava was removed to permit the construction of apartment complexes (the Villa Olímpica). In addition, there is archaeological evidence for Late Preclassic irrigation canals near the site (Palerm 1972).

In the initial centuries of the Late Preclassic the Basin's population growth seems to have taken place primarily in the southern area (e.g., Cuicuilco, Tlapacoya [Barba de Piña Chan 1956]). The northern Basin and Teotihuacan Valley did not match the southern developments, and a variety of environmental and climatic factors may account for that. Whatever the reasons, until ca. 300 BCE "the far northern Basin remained almost uninhabited" (Sanders et al. 1979:97). However, between 300 and 100 BCE, significant changes were also under way in the northern Basin. By 100 BCE, in the Patlachique phase of Teotihuacan, two separate settlements near large springs in the Teotihuacan Valley had begun growing, and they ultimately coalesced into what Sanders and colleagues (1979:101) identify as a "regional center, covering 6–8 square kilometers, with an estimated population of 20,000–40,000 and containing elaborate public architecture" (see also Cowgill 1974:381–82; Millon 1973:51–52 for similar estimates).

It has been commonly accepted that until the destruction of Cuicuilco by lava, Cuicuilco and the nascent Teotihuacan may have briefly been "balanced powers" at opposite ends of the Basin (e.g., Evans and Berlo 1992:6). Of course, the devastation of Cuicuilco by the Xitle lava would have ended the balance of power, with Teotihuacan continuing to develop to become the single most important urban center in the highlands. However, because Cuicuilco is obscured by lava, even understanding the destruction of that site has proven difficult. When did the Xitle eruption take place?

Based upon several early radiocarbon assays, for several decades it was commonly assumed that the Xitle eruption occurred ca.100 BCE. In addition, some scholars suggested that there had been two eruptions of Xitle, with the first only partly damaging Cuicuilco, thus allowing the site to continue for several hundred years into the Classic period until a second eruption brought total devastation to the center (e.g., Blanton et al. 1981; Heizer and Bennyhoff 1972:101–2). Others believe that the destruction was a one time and complete event. For discussions of the various radiocarbon dates and theories see Gonzalez et alia (2000:217) and Siebe (2000:57–59).

Recent investigations have clarified the situation somewhat. Geologic research has shown that Xitle was a monogenetic volcano, a type of volcano that erupts only one time. Thus Xitle could not have sent lava over Cuicuilco in two different eruptions separated by centuries. It is nevertheless possible that other volcanic activity in the region, such as the major eruption of the volcano Popocatepetl at ca. 200–100 BCE (Gonzalez et al. 2000:223; Siebe 2000:61) and/or other regional volcanic activity (e.g., Cordova et al. 1994:594–95; Sanders et al. 1979:106), could have impacted regional geomorphology and affected sites across the southern Basin, including Cuicuilco.

Of equal significance is the fact that two recent independent sets of research at Cuicuilco have provided data indicating that the site's destruction took place several centuries more recently than previously imagined. Radiocarbon dates discussed by Cordova et alia (1994) suggest the Xitle eruption occurred ca. 400 CE. Those researchers also believe that Cuicuilco had already been in decline by 150 CE (Cordova et al. 1994:593–94). In contrast, radiocarbon assays by Gonzalez et alia (2000) suggest the flow covering

Cuicuilco dates to ca. 280 CE. Those investigators also believe that "the abandonment of Cuicuilco was the direct result of the birth and activity of Xitle" (Gonzalez et al. 2000:208; see also Pastrana 1997 and Seibe 2000). Although not in complete agreement, the implications of both sets of dates are nevertheless significant. Teotihuacan was not a fledgling settlement at the time Cuicuilco was devastated by Xitle's lavas; it was already a huge city.

THE ORIGINS OF THE STATE IN OAXACA: ARE THERE PARALLELS?

In contrast to what we know of the Basin/Morelos region, the Preclassic period archaeological record of the Valley of Oaxaca is richly documented. The regional surveys by Blanton et alia (1981:43–75; 1982) and excavations carried out at San José Mogote and other valley sites by Flannery, Marcus, and their collaborators (e.g., Flannery and Marcus [eds.] 1983, 1994; Marcus and Flannery 1996:71–171) present a much more complete and coherent picture of developments there.

The earliest archaeological evidence for a Preclassic period agricultural settlement in the Valley of Oaxaca is the Espiridión Complex (1900?–1400 BCE) at San José Mogote. Although only a small sample of sherds and a few postholes were uncovered (Flannery and Marcus 1994:45–54; Marcus and Flannery 1996:75), they nonetheless mark the beginnings of village life in the valley. From then on the growth and development in the Valley of Oaxaca are nicely documented by archaeological research, which presents a picture of continuity throughout the Early and Middle Preclassic period. However, a major disjunction at the Middle Preclassic/Late Preclassic interface in the Valley of Oaxaca once again raises more questions than answers about the origins of the state in that region.

The Espiridión Complex is followed by the Tierras Largas phase (1400–1150 BCE), documented at nearly twenty sites including San José Mogote. At that time San José Mogote had a population of perhaps 200–300 people (Flannery and Marcus:1994:55–133; Marcus and Flannery 1996:78–79). In addition to domestic structures, the Tierras Largas phase village at San José Mogote was beginning to differ in complexity from its contemporaries, as evidenced by the settlement's size and the presence of public architecture there—rectangular buildings with lime-plastered floors (Flannery and Marcus 1976b:209–11; Marcus and Flannery 1996:87–88). Social differentiation continued and grew in the following San José phase (1150–850 BCE), when it is clear that San José Mogote was a chiefly center (e.g., Blanton et al. 1981:50–63) with a population of perhaps 1000 individuals (Marcus and Flannery 1996:106). New forms of public architecture appeared, including platforms faced with stone or adobes (Flannery and Marcus 1976b:211–12; Marcus and Flannery 1996:109–110). Greenstone jewelry was found with some burials of this phase. Craft production at the site included iron ore mirrors that were traded locally and interregionally. Pottery includes a small percentage of "Olmec" designs, which seem to be differentially distributed in different areas (*barrios*) of the settlement (Flannery and Marcus 1994:135–286; Marcus and Flannery 1996:93–106; Pyne 1976).

In the subsequent Middle Preclassic Guadalupe (850–700 BCE) and Rosario (700–500 BCE) phases at San José Mogote, the settlement increased in complexity and maintained its role as a major chiefly center (Blanton et al. 1981:63–65; Flannery and Marcus 1976b:13–15; Marcus and Flannery 1996:111–35). What happened next, however, at ca. 500 BCE, is perhaps best summed up in the words of Marcus and Flannery (1996:139): "At the end of the Rosario phase…San José Mogote, the largest community in the valley for more than 800 years, suddenly lost most of its population." And apparently simultaneously, a new center arose in the Valley of Oaxaca, the hilltop site of Monte Alban (Blanton et al. 1999:62–67; Marcus and Flannery 1996:139–46).

The disjunctive transition from Middle to Late Preclassic in the Valley of Oaxaca seemingly parallels events occurring elsewhere in Mesoamerica at that same time: the major reorganization that characterizes the beginning of the Late Preclassic. What seems different in the case of Monte Alban is that within about a century it had unified the Valley of Oaxaca and had perhaps become Mesoamerica's first state (Blanton et al. 1981:65–75; Marcus and Flannery 1996:139–94). An interesting aspect of the rise of the Monte Alban state is the possibility that it was linked to conquest warfare (Spencer 2003; Spencer and Redmond 2004:175–84).

Do the data on Preclassic developments in the Valley of Oaxaca compare at all to those from central Mexico? The answers depend upon the areas of central Mexico being considered. Although Chalcatzingo and San José Mogote were very different types of settlements and regional centers, their temporal spans correspond well. Both have Early Preclassic beginnings and both declined at ca. 500 BCE and were replaced by new regional centers. But there the parallels stop. The significant developments of the Late Preclassic did not take place at another center in Morelos, but rather at two sites in the Basin of Mexico, Cuicuilco and (later) Teotihuacan. Unfortunately, the lava capping the settlement at Cuicuilco masks any good evidence of the site's early development. There may have been continuity from the Middle to Late Preclassic there, and if so, then the Cuicuilco situation differs from that at Chalcatzingo or San José Mogote. Rather than declining or disappearing at ca. 500 BCE, Cuicuilco continued and flourished, and it was probably the Basin's most important center in the early centuries of the Late Preclassic.

Comparisons with the Valley of Oaxaca data are more difficult for the Teotihuacan area of the northern Basin of Mexico. We cannot speak of settlement continuity or of a local evolution of complexity there because no evidence exists of any Early or Middle Preclassic settlements at Teotihuacan. It is in that sense, however, that Teotihuacan is comparable to Monte Alban, for both arose on previously unsettled lands. With the emergence of Teotihuacan at ca. 300 BCE, Cuicuilco had a potential competitor, although the centers were on the far distant extremes of a large lake and 70 km apart by land. The question is, what was the relationship between the two centers? Were there serious conflicts between them (e.g., Diehl 1976:279)? Did both centers seek to expand their spheres of influence (Sanders et al. 1979:103)? The same questions can be asked regarding Teotihuacan and contemporary centers in Tlaxcala and Puebla. Nevertheless, at the moment any evidence of warfare or conflict is circumstantial and tenuous (see Spencer and Redmond 2004:191–92). While warfare may have had a role in the development of the Monte Alban state, there presently are no good data suggesting that it also had a similar role at Teotihuacan.

THE UNCERTAIN PATHWAY TO TEOTIHUACAN

What traits truly provide evidence of complexity during the Early Preclassic period in central Mexico? For decades Tlatilco was seen as more complex and a central place because it had "Olmec" pottery, and its neighbors (Zacatenco, El Arbolillo) did not. However, when the Basin chronology was clarified by Tolstoy and Paradis (1970), the differences between those sites were seen instead to be chronological, not hierarchical (e.g., Grove 1974b:1–2; Niederberger 2000:171–93). This chapter has used public architecture, instead of "Olmec" motifs on pottery, as a more unequivocal attribute of developing complexity. With regard to that trait, Early Preclassic Morelos presently appears to have had an edge over the Basin of Mexico, because we do not have good archaeological evidence of what really existed at Tlatilco, Tlapacoya, or elsewhere in the Basin at that time. Nevertheless, even if Tlatilco had been one unusually large settlement and/or did contain public architecture that was undetected by archaeological research, then following its decline ca. 900 BCE nothing comparable in site size or complexity (i.e., with public architecture) seems to have replaced it locally or elsewhere in the Basin. In other words, we do not have evidence of a direct pathway from Tlatilco to Teotihuacan. Or, does a Middle Preclassic successor to Tlatilco lie hidden beneath the lava at Cuicuilco?

The rich agricultural, lacustrine, and natural resource potential of both the Basin of Mexico and Morelos were attractive to early agriculturalists, but do not in and of themselves explain the evolution of complexity in that region. However, beyond this subsistence model, there are presently also two popular viewpoints to explain the origins of central Mexico's complexity. One interprets the presence of pottery with "Olmec" motifs as indicative of Gulf coast influences that stimulated sociopolitical complexity there (and elsewhere; e.g., Blomster et al. 2005; Tolstoy 1989b). The opposing view (e.g., Demarest 1989; Flannery and Marcus 2000; Flannery et al. 2005; Grove 1989a) interprets local and regional highland developments as autochthonous until demonstrated otherwise. I believe that the complexity at Chalcatzingo during the Early Preclassic can best be explained by the latter approach, particularly because the Early Preclassic ceramic vessels and figurines of Morelos and the Basin of Mexico show their strongest similarities to those of West Mexico, not the Gulf coast.

The Middle Preclassic saw expanding populations and a transformation to much more southward-oriented interaction networks. Because so much of my research has been dedicated to Chalcatzingo, the changes there are quite striking to me. The greatest change was, of course, the adoption and creation of Olmec-like stone monumental art at the site. But take away those monuments, and in its material culture Chalcatzingo becomes very little different from the Basin sites of Zacatenco and El Arbolillo. In sum, Chalcatzingo had some form of significant two-way interaction with the Gulf coast Olmec and most probably the site of La Venta. I certainly attribute the adoption of stone monuments by Middle Preclassic Chalcatzingo to its Gulf coast interactions. However, Chalcatzingo was inhabited by central Mexican peoples who seem to have had a strong sense of independence, for they manipulated monumental art in their own way (e.g., Grove 1999:287–88; 2000a; 2007b:220). They were not merely emulating La Venta Olmecs. Furthermore, the site's massive Middle Preclassic earthen platform mound has its beginning stages in the Early Preclassic and represents local continuity rather than a new external "influence." Likewise, the smaller Middle Preclassic stone-faced platform mounds share nothing with La Venta and are likewise highland innovations. As always, the major problem is a lack of comparable data elsewhere in Morelos, the Basin of Mexico, Puebla, Tlaxcala, or Guerrero (aside from Teopantecuanitlan).

Although I have not argued the case in this chapter, I believe that in the Middle Preclassic a special relationship developed between La Venta and the highland centers of Chalcatzingo and Teopantecuanitlan. I believe that it was a relationship based on the exploitation and movement of greenstone and other exotic items from Guerrero and other central Mexican regions, through Morelos and onward to the Gulf coast (e.g., Grove 1987a:438–40; 1989b:145–47). Thus I believe that Hirth's (1978) Gateway City model is still highly relevant in terms of explaining the importance of both Chalcatzingo and Teopantecuanitlan. Furthermore, it is probably not coincidental that all three centers declined and faded away at about the same time, ca. 500 BCE. Cuicuilco, in the Basin, did not decline, however, but continued into the Late Preclassic and thrived, a fact that suggests it had not been part of the Middle Preclassic Guerrero-Morelos-Gulf coast interaction network, and that it perhaps also somehow benefited from Chalcatzingo's decline.

There is, however, another element of that equation that should be taken into consideration—the poorly understood Middle Preclassic "southern connection," expressed by the presence of several different "southern" traits at the central Mexican centers of Teopantecuanitlan and Chalcatzingo. Southern interactions with central Mexico in the Middle Preclassic have not been considered in previous discussions of long-distance exchange networks vis-à-vis the origins of Maya states. Although the nature of the connection remains unclear, these contacts are nonetheless relevant to such discussions. Significantly, there are also data suggesting that a southern connection was already operative in the Early Preclassic. Greenstone beads from Early Preclassic tombs at the West Mexican site of El Opeño, Michoacán (ca. 250 miles northwest of both Chalcatzingo and Teopantecuanitlan), have been identified by the Smithsonian Institution as Motagua Valley jadeite (Arturo Oliveros, pers. comm.). If the ca. 1300 BC radiocarbon dates for El Opeño (Oliveros and Paredes 1993) are correct, then Motagua jadeite occurs earlier at that West Mexican site than at Gulf coast Olmec or central Mexican sites! This implies that the Motagua jadeite had reached El Opeño via an Early Preclassic interaction network that bypassed those other areas, perhaps via a sea route along the Pacific coast. Motagua jadeite may likewise have played a role in the Middle Preclassic southern connection, together with archaeologically less visible southern items such as cacao and quetzal feathers.

A completely new set of interactions characterize the Late Preclassic of the Basin and Morelos. Throughout that period and during the initial stages of Teotihuacan's developments, the ceramics and figurines of the Basin and Morelos once again show very strong similarities to complexes in the west, and particularly to the Chupicuaro phenomenon of eastern Michoacán and western Guanajuato. That northwest connection is strongly reflected in the pottery throughout the Basin, including at Cuicuilco, Ticoman, and the Cuanalan and Patlachique phases at Teotihuacan (e.g., Bennyhoff 1966:20–24; Heizer and Bennyhoff 1972:100–101). In fact, the figurines recovered from the 1959 investigations in the interior of the Pyramid of the Sun (Millon et al. 1965) are primarily H-type "Chupicuaro" figurines. While it is likely that the strong Chupicuaro-like roots to the Basin's Late Preclassic ceramics had little to do with the architectural foundations of Teotihuacan, their potential contributions in that or other realms (e.g., ideology) have never been seriously explored, and they serve as a reminder that the beginnings of Teotihuacan were multifaceted.

In addition to the strong Chupicuaro flavor of early Teotihuacan ceramics, Bennyhoff (1966:24) also noted several traits that might have Puebla-Tlaxcala roots. René Millon (1981:221) has likewise suggested that Late Preclassic Teotihuacan may have been strongly "influenced by peoples from the Puebla-Tlaxcala region." Unfortunately, the Early and Middle Preclassic manifestations in that region are poorly known, and thus have not been discussed in this chapter. Some Puebla-Tlaxcala Middle Preclassic sites may have public architecture (e.g., García Cook 1981:245–56), and the Late Preclassic there saw a burst of complexity that included impressively large pyramidal architecture at sites such as Cholula (Uruñuela et al. 2006), Xochitécatl (Serra Puche and Beutelspacher 1994), and Totimehuacan (Spranz 1970). Any Late

Preclassic interactions of that region with the northeastern Basin of Mexico and Teotihuacan would probably have taken place via the so-called Teotihuacan corridor that geographically links the two areas (e.g., García Cook 1981:267; Millon 1981:221). Evidence that significant interactions did occur can be seen in the fact that *talud-tablero* architecture, a trait considered a diagnostic of Classic period Teotihuacan, is present several centuries earlier in the Puebla-Tlaxcala region. Late Preclassic *talud-tablero* facades are known at Tlalancaleca (García Cook 1981:252) and decorate residential house platforms at Tetimpa, near Cholula (Plunket and Uruñuela 1998).

Was there also an "Olmec legacy" that established itself in central Mexico in the Early or Middle Preclassic periods, and then centuries later served as an underpinning of the Teotihuacan state? The disappearance in central Mexico of Olmec-like stone monumental art and iconography and "southern connection" traits with the decline of Chalcatzingo and Teopantecuanitlan at ca. 500 BCE, together with the strong Chupicuaro (northwestern Mexico) flavor of the Late Preclassic Basin and Morelos, suggest that there was no such legacy (see also Diehl 1976:256; Tolstoy 1989b:299). As Sanders and his colleagues (1979:392) note, Teotihuacan's emergence "represents a revolutionary break with the past, and a complete redesign of the ecosystem of the Basin."

The Basin of Mexico surveys indicate significant growth in sites and population in the initial centuries of the Late Preclassic (Sanders 1981b:165–75; Sanders et al. 1979:97–106). Therefore, just as in the case of the Valley of Oaxaca and Monte Alban, Teotihuacan's beginning was not a matter of resource potential nor of human numbers, for those were already in place. The basic ecological model proposed by Sanders et alia (1979:392–95) nearly three decades ago remains viable today. It sees the rise of Teotihuacan as closely related to hydraulic agriculture tied to two major springs in the large expanse of the middle and lower alluvial plain of the Teotihuacan Valley, and assumes the growth in the emerging city was also related to craft production and trade, including the exploitation of the nearby Otumba obsidian source. But there remain significant archaeological unknowns that impede our understanding of just how and why everything came together as it did in the northeast area of the Basin of Mexico. For example, we need much more data on Puebla-Tlaxcala, but at the same time there also needs to be a serious consideration of the Late Preclassic ties in the Basin and Morelos to the northwest, and how or what those ties may have contributed to both Cuicuilco and Teotihuacan. Of course, we need to know much more about Cuicuilco, but it is likewise crucial to learn more archaeologically about the Cuanalan and Patlachique phase settlements that grew to become Teotihuacan and thus were its true physical foundation. What intraregional and interregional ties did they have? And there is the question of what role, if any, volcanic activity in the mountains just beyond the southern Basin may have played in the equation. Did it nudge southern Basin populations northward?

Every day that passes sees urban development persistently spreading outward over the Basin of Mexico, making the answers to all those questions ever more difficult to obtain.

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4

The Early Preclassic Olmec: An Overview

ANN CYPHERS

Basic questions about the Olmec concern their identity, origins, development, and role in Mesoamerican prehistory. Years ago, there was no quibble in calling them the *cultura madre* or Mesoamerica's first civilization (Caso 1965; Covarrubias 1957; M. Coe 1965a, 1968), but now this label is questioned (Demarest 1989; Flannery and Marcus 2000; Grove 1989a; Marcus 1989; Sharer 1989b). The Olmec, here considered Early and Middle Preclassic inhabitants of the southern Gulf coast (following Coe 1968:6–7; Diehl 1989:18; 2004:13; Grove 1989a; Lowe 1989b), have been characterized as having a "complex hierarchical society" (Diehl and Coe 1995:11), a portrayal warranting close examination.

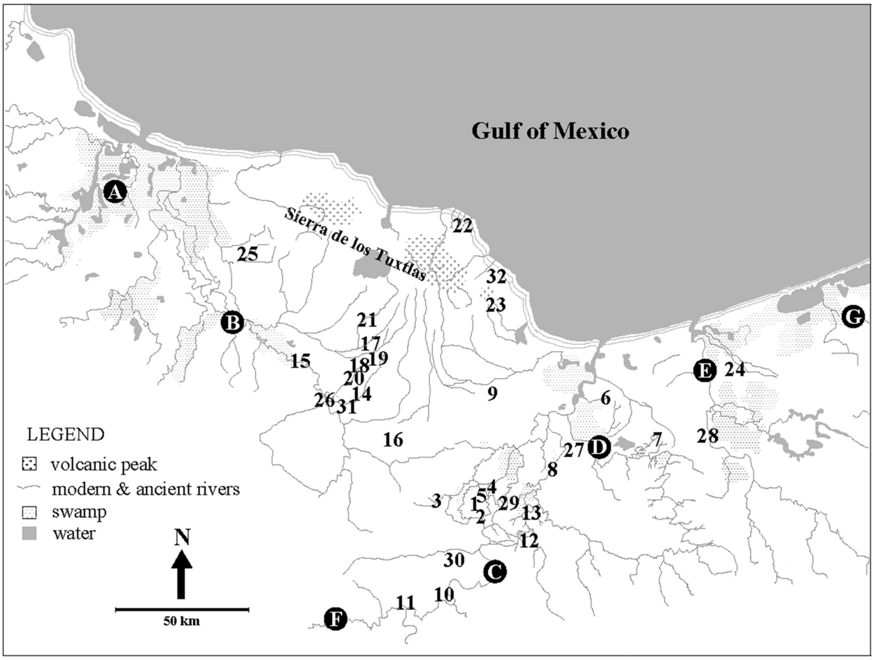
The question of the nature and relative scale of their Early Preclassic complexity is a major issue in extant debates about the impact or influence of the Olmec on their contemporaries, particularly in light of the often disputed evidence for widespread contacts among these societies (see Blomster et al. 2005; Coe 1968:98, 110; Earle 1991b; Flannery 1968; Flannery and Marcus 2000; Flannery et al. 2005; Grove 1968; Neff et al. 2006a; Neff et al. 2006b; Price 1977; Sharer and Grove 1989; Sharer et al. 2006; Stoltman et al. 2005). The issue of primary state formation for the Olmec is rather a "to be or not to be" question, due to the absence of historic cases for comparison (Trigger 1974:96–97) and their limitrophe position in many evolutionary schemes. Since the present volume is not aimed at the state as an evolutionary stage, but rather with the origins of Maya polities, this chapter will discuss the archaeological evidence for viewing San Lorenzo as the capital of an early Olmec polity. The question that follows from this is the degree to which this development was ancestral to Maya and other Mesoamerican polities. While other contributors to this volume will also consider this issue (see chapters by Grove, Clark, and Hansen), this chapter will consider whether San Lorenzo spawned daughter polities, such as Laguna de los Cerros and possibly La Venta.

The emphasis taken in the present chapter, to paraphrase Michael Smith (2004:77), will be on empirical research rather than on theory-driven speculation, even though I will make reference to theories that embrace the Early Preclassic Olmec as an early state and the contrary view. The evidence and interpretations of the nature and scale of Olmec heartland organization are covered in this review, which examines topics such as territory, origins, society, regional organization, and exchange networks.

THE OLMEC HEARTLAND

What has traditionally been called the Olmec heartland of Veracruz and Tabasco's Gulf coast is limited by the Papaloapan and Tonalá rivers, a geographic definition maintained by Barbara Stark and Philip Arnold (1997), who call it the "southern Gulf lowlands." The term "heartland" (Fig. 4.1) has been used to identify the place of origin of this culture in accord with the culture-area concept (Bernal 1969:13, 15; Caso 1965; Coe 1968:6–7; Grove 1997:53; Lowe 1989b). At the same time, the inherent meaning of "heartland" refers to a political territory defined by the spatial extent of stone political and religious symbols (Bernal 1969:52–54; Drucker 1981:29).

The heartland's lowland and upland landscape, characterized by great environmental diversity and numerous resources, ranges from the coast and littoral to the riverine lowlands of the Papaloapan, Coatzacoalcos, and Tonalá river systems, and the Tuxtlas volcanic massifs. The significant matter of its southern limits has attracted little attention. Internal distinctions in David Grove's model of "zonal complementarity" (1994:151–54; 1997:76) correspond to the locations of major Olmec sites: coastal lagoon (La Venta), riverine (San Lorenzo), and uplands (Laguna de los Cerros). The region is heterogeneous and dynamic even though the vision of a low, flat undifferentiated landscape (e.g., Bernal 1969:17; Blanton et al. 1996:8; Earle 1976:213; Sanders and Webster 1978:288–91) promotes the now discredited idea that this humid tropical environment was not apt for the rise of civilization.



ARCHAEOLOGICAL SITES
1. San Lorenzo
2. Loma del Zapote
3. Estero Rabón
4. El Remolino
5. Tenochtitlán
6. Ixhuatlán
7. Arroyo Sonso
8. Emilio Carranza
9. Chiquipixta
10. La Oaxaqueña
11. Las Limas
12. El Manatí
13. La Merced
14. Laguna de los Cerros
15. Cuatotolapan
16. Cruz del Milagro
17. La Isla
18. El Cardonal
19. Loma de la Piedra
20. Llano del Jícaro
21. Los Mangos
22. Zapotitlán
23. Pajapan
24. La Venta
25. Tres Zapotes
26. El Marquesillo
27. Sta. Ma. Uxpanapa
28. Los Soldados
29. Ahuatepec
30. Ojo de Agua
31. El Nuevo Órgano
32. Piedra Labrada

WATERWAYS
A. Papaloapan system
B. San Juan River
C. Coatzacoalcos River
D. Uxpanapa River
E. Tonalá River
F. Jaltepec River
G. Pajonal channel

4.1. Map showing the Olmec heartland with the location of notable archaeological sites, many with stone monuments.

The Gulf coast environment has figured prominently in materialist models for the emergence of social complexity in which variables such as population pressure, competition, circumscription, agricultural risk, productivity and intensification, and environmental diversity are considered (e.g., Coe and Diehl 1980; Price 1971; Sanders and Price 1968). It is also a prominent feature of Alfonso Caso's (1965), Ignacio Bernal's (1969), and Michael Coe's (1965b) proposals of an Olmec empire based in the heartland.

ORIGINS

The Olmec have been subject to diverse debates concerning their temporal and spatial placement. Following the appearance of the new artistic style, scholars concentrated on unraveling Olmec origins and geographic extent while endeavoring to define their placement in then existing chronological sequences (e.g., Boas 1921; Caso 1942; Covarrubias 1942; Gamio 1942; Vaillant 1930, 1931, 1935; Stirling 1940a, 1943a, 1947; Covarrubias 1946a, 1950, 1957; see also M. Coe 1965a, 1965b, 1965c). After numerous attempts to find a correlation with historic cultures, the art style was named, or rather misnamed, as the "Olmec," a term that has found more favor than others. The most well known debate revolved around their chronological relationship to the Classic Maya, which was settled with the La Venta radiocarbon dates (Drucker et al. 1959; Morley 1946; Thompson 1941). Once basic temporal hurdles were surpassed, issues involved Olmec origins and their impact on other cultures, often characterized as the Highland-Lowland debate (see Sharer 1982), but this discussion was complicated by the lack of refined chronological sequences.

The vision of external origins and migrations, brought into play numerous times for the Olmec, gained momentum with the acquisition of more archaeological knowledge. The highland school of thought favored origins outside the Gulf coast, with beginnings proposed for Guerrero (Covarrubias 1957), Morelos (Piña Chan 1955), Oaxaca (Wicke 1971), and the Pacific coast (Graham 1982). Chronological problems plagued the early studies because excavations, such as at El Arbolillo, Zacatenco, and Tlatilco, were not rigorously stratigraphic; this led to the proposal of a local peasant culture residing alongside an elite culture of Olmec origin (Covarrubias 1946a). Despite eventual refinements (see Tolstoy and Paradis 1970; Grove 1974a; Niederberger 1976), scholars continue to debate the matter of Olmec influence in the highlands (see Sharer and Grove 1989).

Even with the research conducted by the Río Chiquito Project at San Lorenzo in the late 1960s (Coe and Diehl 1980), the questions of origins and migration were not laid to rest despite the sound chronological sequence founded on stratigraphic excavations and 14 radiocarbon dates. Some scholars believed the long uninterrupted sequence at San Lorenzo to be indicative of an *in situ* development (Grove 1974a; Sharer 1982), and others sought origins in the Tuxtlas Mountains (Heizer 1968:24). Michael Coe and Richard Diehl (Coe 1968:75; Coe and Diehl 1980:I:143) maintained that the earliest pottery was most similar to Pacific coast ceramics, which in turn show similarities to early South American ones (see Coe 1961, 1981b; Lowe 1975). Added to their view that the San Lorenzo ceramic sequence shows abrupt changes, a scenario of migration from the Pacific coast was born (see also Lowe 1989b; for a different viewpoint, see Diehl 2004:28).

Further elaboration of the Pacific coast migration theory is formulated by researchers working on the Pacific coast (e.g., Clark 1990, 1997; Clark and Blake 1989) and involves the early establishment of the Mokaya culture, which developed alongside the early cultures of the northern Isthmus of Tehuantepec but achieved a higher degree of complexity. Rank and simple chiefdoms of the Mazatán region were proposed to be in contact with the Olmec and may have stimulated their complexity (Clark 1997:228); and later, Olmec expansion in the form of colonies materialized in Chiapas (Agrinier 1989; Cheetham 2006, 2007, 2010; Clark 1993:166–67; 1997:229; Lowe 1998c).[1] The theory regarding the emergence of rank society in the Soconusco hinges on sequentially contingent, unbalanced reciprocal exchanges—in the course of competitive feasting sponsored by aggrandizing individuals—that led to prestige and power inequalities (Clark and Blake 1994). The supporting data center largely on the celebrated quality of the Barra phase ceramics; these primitive valuables (Clark and Gosser 1995) were displayed and used for serving beverages in feasts. Insofar as John Clark has proposed that "[t]he Olmecs may have received their initial stimulus to develop complex society from the coastal dwellers of the Soconusco region" (1997:228), this stimulus is understood to be the adoption of the feasting complex, whose alleged presence in the Gulf coast is based on some pottery similarities.

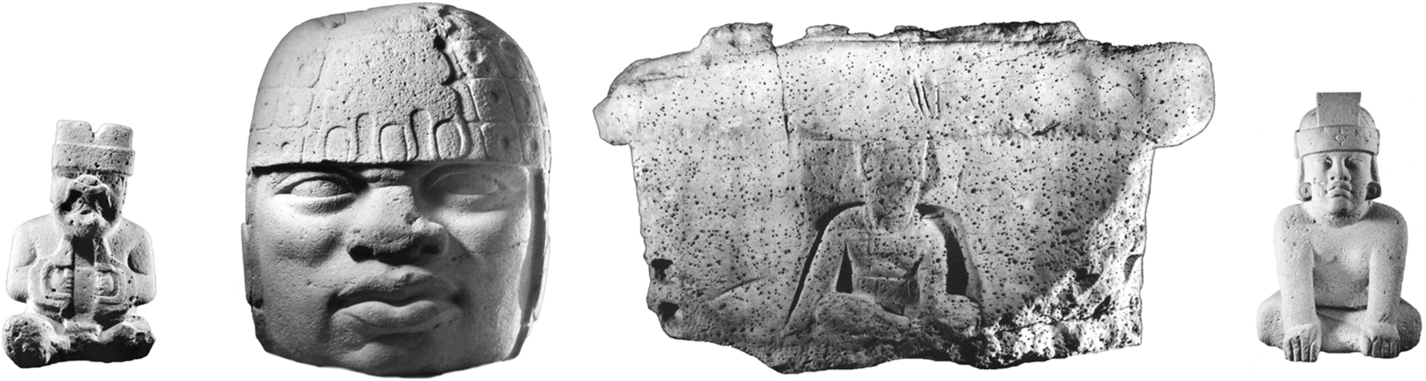
However, this proposal as yet finds little support. Recent studies show that Ojochi and Bajío phase pottery has a few similarities to coeval types from the Pacific coast, but the assemblages are not identical (Arnold 2003; Cyphers n.d.-a; Rodríguez and Ortíz 1997; Symonds et al. 2002) and, importantly, that there is continuity in the cosmological meaning of certain decorated vessels from the Bajío phase through the apogee at San Lorenzo (Di Castro and Cyphers 2006). My analysis of San Lorenzo pottery indicates that less than 15% of Ojochi, Bajío, and Chicharras pottery vessels are large serving containers which could be used in feasting (Cyphers n.d.-a); this stands in sharp contrast to the Soconusco materials. Philip Arnold's (2003) well-documented ceramic evidence from the La Joya site, located in the central Tuxtlas, shows no sharp transition from the Tulipan to Coyame phases that would indicate possible migrations. In the same vein, Barbara Stark believes that the degree of forest disturbance exhibited in the Tuxtlas pollen cores indicates a greater maize production than would have been necessary for brewing maize for feasting (2000:32).

In sum, the pre-San Lorenzo phase ceramics on the Gulf coast do not provide unequivocal evidence that migrations from the Pacific coast (or from anywhere else, for that matter) stimulated complexity in the Olmec heartland. Rather, the Ojochi and Bajío assemblages that show participation in a southern ceramic sphere(s) or tradition(s) (Clark 1991; Winter 1994:130–34; Zeitlin 1994) may be a local development. Formal similarities to some highland pottery seem best viewed as the result of early interregional interactions, including exchange relationships. Stark suggests that it was the Gulf coast agricultural potential that was a major factor in attracting population rather than aggrandizing leaders (2000).

OLMEC SOCIETY

Much of what is inferred about the Early Preclassic florescent period comes from the study of monumental sculpture complemented by analogies to later Mesoamerican cultures. But not everyone agrees that stone art should occupy an important place in interpretation or that it indicates greater sociopolitical complexity than in other societies (e.g., Flannery and Marcus 2000; Grove 2007b; Sanders and Price 1968:127; for a different viewpoint, see Clark 1997; Cyphers 2004a; Diehl and Coe 1995; Drucker 1981:29; Haas 1982:186; Stark 2000). What remains glaringly clear is that only the Olmec designed, created, transported, and utilized monumental sculpture at this time, which not only constitutes an important defining characteristic of their society but also reflects their unique inclination towards intense labor mobilizations. For this reason alone, it should and does figure prominently in Olmec studies, just as the scale, frequency, and design of monumental architecture is widely used as a diachronic material measure of sociopolitical development throughout Mesoamerica (e.g., Balkansky 1999; Feinman and Nicholas 1999; Sanders et al. 1979).

Olmec art studies have provided us with a view of that society as composed of ruling and commoner classes (Fig. 4.2). Michael Coe's influential

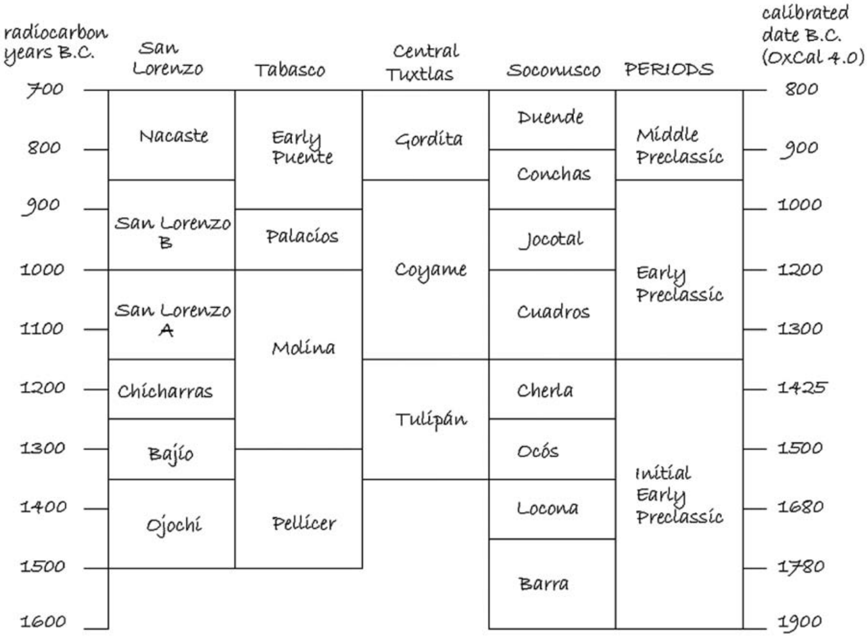


4.2. Images of Olmec stone monuments. From left to right, transformation figure, Monumento 10 from San Lorenzo; colossal head, Monument 89 from San Lorenzo; throne, Monument 14 from San Lorenzo; and anthropomorphic figure from Cruz del Milagro.

views of elite social order, based largely on stone monuments and iconography with liberal analogies to the Maya and other later cultures, center on a state organization, a royal cult ruled by powerful dynasties in which the rulers and their dynasties calculated their descent from a jaguar deity, analogous to the later god Tezcatlipoca (Coe 1968, 1972, 1989a; see also Carneiro 1977; for a different viewpoint, see Demarest 1989; Diehl, in Coe and Diehl 1980; Marcus and Flannery 2000). He also proposed that San Lorenzo attained statehood (in Coe and Diehl 1980:II:147). Findings in the field helped him realize that the manpower necessary for many activities, such as monument transport and plateau construction, must have been obtained from the near and more distant hinterlands of the capital. His analysis of political organization led him to reject the proposal of an Olmec theocracy (Heizer 1960) and, based on analogies to inscriptions from the Maya area, apply the concept of secular leadership by a hereditary lineage or dynasty. He proposed the identification of the rulers in the colossal heads (which includes their role as warriors and ballplayers) and the recognition of lineage or descent emblems in the seated figures found in altars, a proposal that continues to be endorsed (Cyphers 2004a, 2004b, 2008; Gillespie 1999; Grove 1970, 1973). Based on the variety and sources of trade materials, he suggested that Olmec society contained a group of merchants, analogous to the armed Aztec *pochteca*, who operated a far-flung trading network and participated in conquests (M. Coe 1965c; see also Soustelle 1984; for a different viewpoint, see Drennan 1984:35; Price 1970). And finally, with regard to religion, the presence of standardized deity representations that were identified in Olmec art points to a state religion (Coe 1968:65, 110–11; 1989a; Diehl 2004:105; Joralemon 1971; for a different viewpoint, see Flannery 1968; Marcus 1989; Price 1977). Coe touched upon several points that are shared in one form or another among proponents of a similar view (e.g., Drucker 1981; Haas 1982): (1) the social and economic costs of monument transport imply high population levels and high manpower requirements necessitating labor tribute and surplus subsistence production; (2) social stratification is manifested by and in stone sculpture with an emphasis on divine kingship to the detriment of lesser social categories; (3) distant trading contacts were managed by the elite; and (4) the state controlled religion.

Because these views are controversial, a look at the data and specific interpretations may be instructive. Although it has not always been stressed in Olmec studies, archaeological context is an indispensable instrument for understanding synchronic and diachronic uses, meanings, and discard of sculpture and other cultural materials (Cyphers 1999). Interpretations of the intrinsic meaning of stone monuments and other ritual objects, based on formal and iconographic studies, require backup from studies of other kinds of artifacts, which are equally as important as aesthetically attractive monuments. Therefore, archaeological data obtained from excavations and surveys are indispensable in verifying or rejecting the views inscribed in stone at the behest of ancient elites (see Joyce and Winter 1996; Marcus 1974)—with the qualifier that the intensive energetic investment in stone monuments and architecture corresponds to quantifiable per capita labor measures (Haas 1982) that may be evaluated in environmental and demographic contexts in order to appraise the role of tribute, surplus, and coercion in their creation (see Heizer 1966).

Little is known about early Olmec society prior to 1400 cal BCE because of the thick overburden that obscures these deposits. Unfortunately, we have little information about the dwellings and burials of this time period (Fig. 4.3); nonetheless, various peeks into the bowels of San Lorenzo give provocative hints about what was happening at this early time. Even though its full dimensions are unknown, a 2 m high stepped earthen platform (Coe and Diehl 1980:I:104–106) suggests early monumental constructions. Likewise, a 400 m^2 sunken quadrangle is another indicator of large-scale construction (Cyphers n.d.-b), and its blueprint and uses imply that very early cosmological concepts were involved in its creation and design. Both examples constitute the first of many construction stages that would appear on a valuable and limited resource, the highest terrain of the Island, and, along with the earliest offerings placed at El Manatí (Ortiz and Rodríguez 2000), illustrate that Olmec beliefs and ritual did not appear suddenly in the Chicharras phase but were already in place centuries earlier. These edifices and the open-air sacred theater at the base of El Manatí hill likely served as private and public ritual spaces for many groups from the region, including the emerging elite of San Lorenzo. At the same time, the appearance of pottery vessels with divine symbols of Earth and Sky (Di Castro and Cyphers 2006) may be associated with activities intended to emphasize social differences. The view that the Bajío phase was a time of egalitarianism with no evidence for interest in the monopolization of the cosmology (Coe and Diehl 1980:I:149) is now outdated.



4.3. Chronological chart that correlates sequences from San Lorenzo, Tabasco, the central Tuxtlas and the Soconusco.

The name Olmec invariably summons the mental image of colossal heads (Fig. 4.2), which could be considered the beginning point for interpretations about Olmec society since they have been subject to numerous and wide-ranging interpretations since José María Melgar y Serrano (1869) reported the first one from Tres Zapotes and suggested Olmec origins in Ethiopia. From the time when Matthew Stirling recognized that the size and individuality of the colossal heads must indicate portraits of prominent individuals (Stirling 1955:20; see also Gillespie 1999), this idea then blossomed into the widespread notion that they represent portraits of hereditary rulers, the maximum representatives of powerful dynasties (Coe 1968, 1977, 1989a; De la Fuente 1992; Grove 1981b; for a different view, see Flannery and Marcus 2000:7). The heads from each site may represent a single dynasty or related lineages (De la Fuente 1992:102; Grove 1981b:67). De la Fuente adds that they also reflect profound ideas and beliefs related to cosmic order (1992:15). Other related interpretations include the heads as dead or ancestral rulers (Cyphers 2004b; Wicke 1971), idealized portraits

(Kubler 1961), ballplayers, warriors, or shamans (Bernal 1969:56; M. Coe 1965c:763–64; Piña Chan and Covarrubias 1964:36; Coe 1977), and rivals for the throne (Clark 1997:222).

The fact that most colossal heads were not excavated *in situ*—added to the possibility of resetting in ancient times (see Graham 1989:229)—contributes to discussions regarding their antiquity, although the contexts of a head (Cyphers n.d.-b) and a throne (Coe and Diehl 1980:I:94–99) in process of being recycled at San Lorenzo suggests their creation near the end of the San Lorenzo phase. William Clewlow (Clewlow et al. 1967) proposed that the then known 12 colossal heads, corresponding to three groups defined by site of origin (San Lorenzo, La Venta, and Tres Zapotes), share enough similarities to postulate contemporaneity within one or two centuries, which implies overlapping occupation of the three sites. In contrast, Charles Wicke showed a temporal sequence of heads beginning with San Lorenzo and followed by La Venta and Tres Zapotes, suggesting a sequential rise and fall of the three sites (1971). Although the question of temporal overlap in the centers' occupations has received some clarification from field data, the heads stand as monuments to our uncertain knowledge about the kinds and duration of the relationships between these sites.

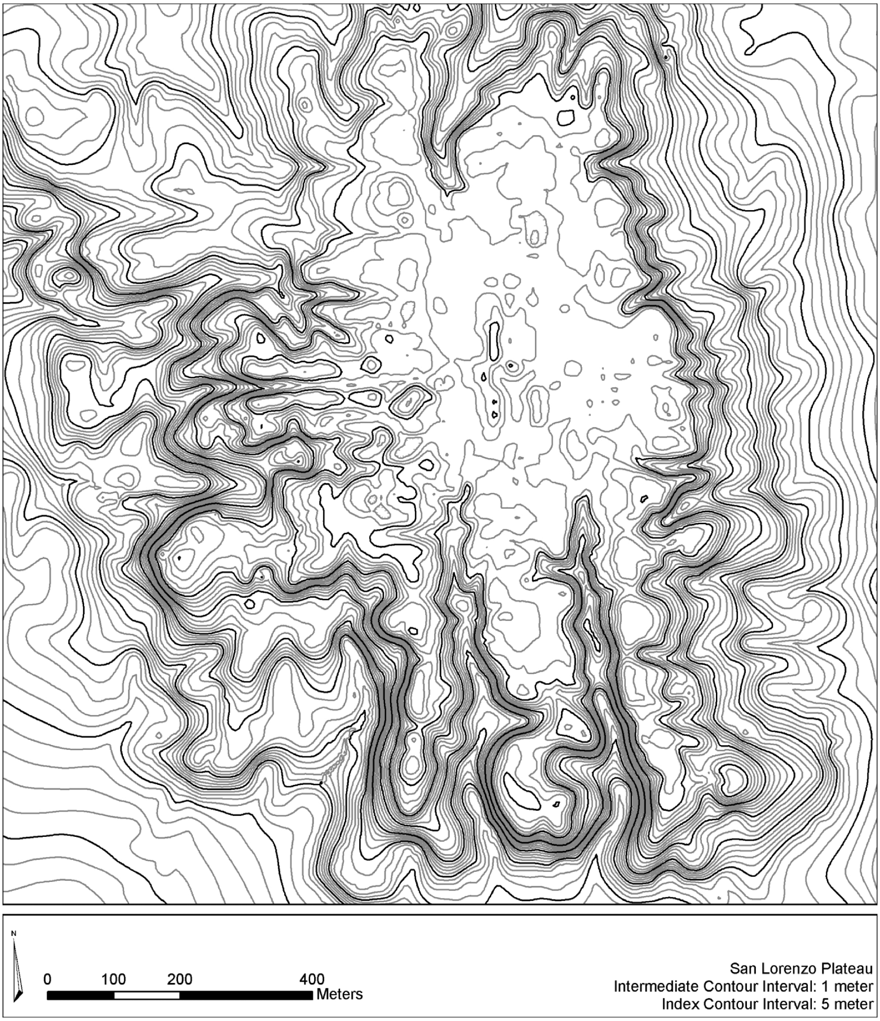
At the site level, some interpretations of colossal head locations and layouts include assumptions that all were relatively contemporaneous (Beverido 1970; Grove 1999), such that their position in relation to each other, as well as cardinal orientation, has cosmological significance. Francisco Beverido's observation that the San Lorenzo heads were laid out in two north-south lines receives some support from recent work, although the close examination of original context does not fully bear out the lines as he defined them; rather, two parallel lines crossing the southern plateau are thought to form an unfinished commemorative scene composed of ancestral rulers, perhaps designed to revitalize the sacred underpinnings of dynastic legitimization during difficult times at the end of the apogee phase, ca. 900–850 BCE (Cyphers 2004b; see also Grove 1999; for a different viewpoint, see Clark 1997:222). Lines of ancestor portraits survive into the Middle Preclassic at La Venta.

Even as colossal heads are a hallmark of Olmec culture and its rulers, they conceivably should be considered secondary in political importance to monolithic stone thrones (Cyphers 2004a, 2004b, 2008; Grove 1981b). The recycling of heads from thrones provides important evidence on the sequence of monument manufacture and suggests that such recycling was involved in ruler commemoration (Porter 1989). Once called "altars" until David Grove identified their functions and meanings (1970, 1973), they can be viewed as the seats of rulers that contain genealogical and cosmological testimony related to the rulers' legitimation (and of their corporate descent group or "house"; see Gillespie 1999) and their right/ascent to office (Cyphers 2008). As well, because the thrones (Fig. 4.2) are consistent with first phase monuments, as opposed to recycled ones, there was a heavy labor investment in their transport from the source, unlike colossal heads shaped on-site through recycling (Cyphers 2004b).

While attention focuses on the powerful rulers and elite because of the impressive size, form, and elaborateness of statuary, stone art also provides clues to identifying other social groups based on dress, ornament, and physical appearance, which are interpreted in terms of significant social differences and ascribed status (Drucker 1981:33; Grove 1997:76). Transformation figures (Fig. 4.2) showing a mixture of anthropomorphic, zoomorphic, and/or fantastic features may be shamans participating in ecstatic experience in which communication with the supernatural world was possible, rain deities, or impersonators of such deities or shaman kings (Furst 1968; Grove 1981b; Kappelman 1997; Reilly 1989; Taube 1996b). Kent Reilly's argument for state shamanism as a charter for rulership includes the postulation of a political hierarchy of such specialists (1995a).

All in all, interpretations of art provide insights into what is frequently construed as the Olmec ideology of stratification in which founder/origin principles are the basis for social exclusion and lineage ranking, placing rulers at the apex of society and commoners as non divine with separate descent. Divine kingship is but one aspect of social stratification, and there is a need to understand its economic bases, such as in the restricted access to assets, labor, utilitarian and sumptuary items, in order to materially verify such ideology.

Burials are usually assumed to be excellent indicators of social differentiation, with regard to their placement, offerings, and the evidence obtainable from bones that relates to diet (see Hendon 1991; Paynter 1989; Whalen 1983). To date, a few Middle Preclassic interments at La Venta include likely burials of rulers (Grove 1997:77), but at San Lorenzo and lesser centers no such burials have been found, and unfortunately, the ones excavated do not constitute a large enough sample for generating status inferences. Two San

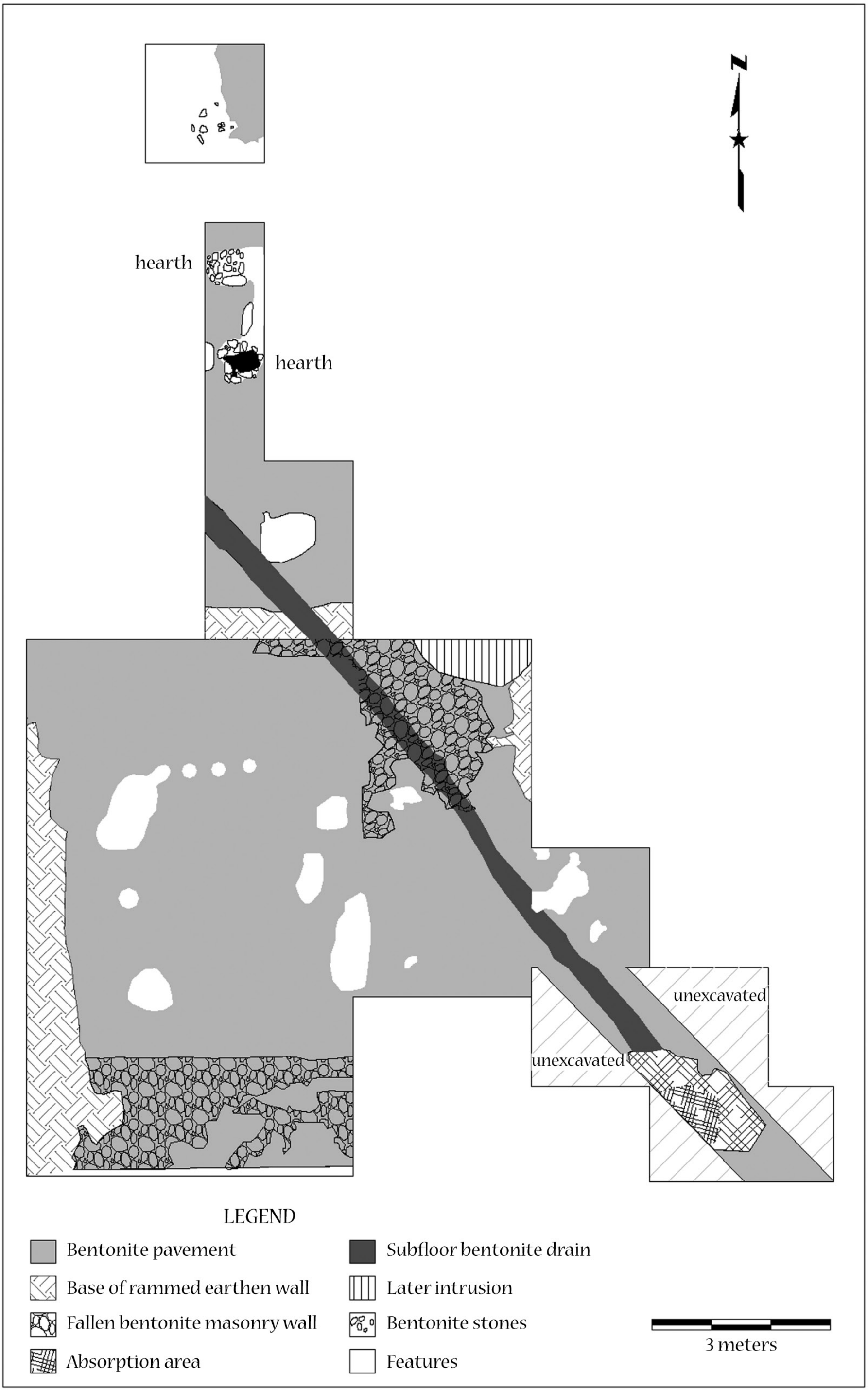

N
0
100
200
400
Meters
San Lorenzo Plateau
Intermediate Contour Interval: 1 meter
Index Contour Interval: 5 meter

4.4. Topographic map of San Lorenzo showing the top of the plateau, terraces and part of the periphery. Courtesy Timothy Murtha.

Lorenzo phase contexts provide information from human burials likely related to human sacrifice (Villamar 2002). The first context from the Loma del Zapote site provides evidence of a large ceremonial structure associated with a mutilated human sculpture and possible ritual bath in which the reburied remains of one individual were found interred between floors. The second context from San Lorenzo consists of an ossuary with remains of at least six individuals, including one complete individual and many assorted long bones that had been dismembered from corpses upon their deterioration. Remains of infants found at El Manatí may be vestiges of sacrificial rituals (Ortiz et al. 1997:57, 135–36) and re-interment.

Architecture provides another set of material indicators of social differentiation, particularly ancient residences and monumental constructions that require forethought, finance, planning, organization, and maintenance. Settlement organization during the San Lorenzo phases on the sacred San Lorenzo plateau and its periphery relates to social and political differentiation, which is echoed in the site's topography and placement of residential areas, i.e., the political elites located atop the plateau, with diminishing status generally paralleling lower altitude, terrace, and periphery position. This layout seems to reproduce the cosmic map of a sacred mountain (see also Bernal-García 1994). The apex of the site, the plateau, was reserved for the most important people and their activities, followed by terrace locations, where the nobles lived, and lastly the periphery for the commoners (Fig. 4.4). The shape of the social system, reiterated in the form of the built environment, is a message reinforcing principles of social differentiation.

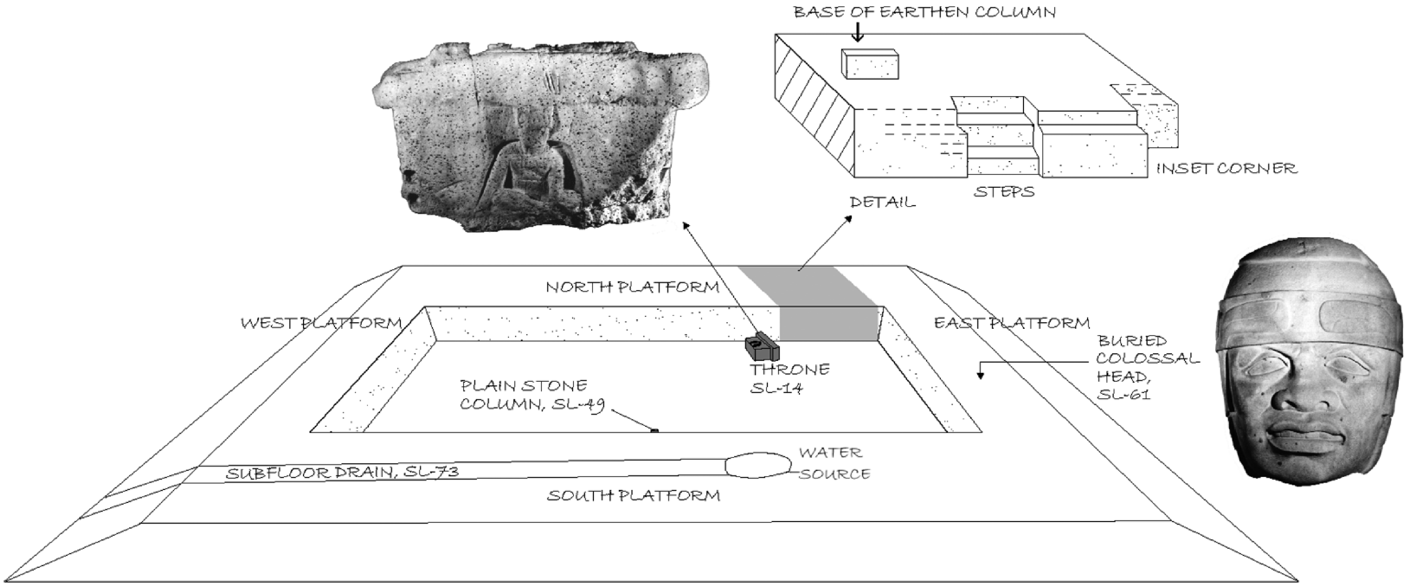
Dwellings excavated at San Lorenzo provide evidence of social position, as manifested by size, design, and construction materials and techniques, a tendency also observed in hinterland sites (Cyphers 1997a, 1997b, n.d.-b; O'Rourke 2002; Wendt 2003a) during the San Lorenzo phase. Dwellings range from the most grandiose that contain imported stone architectural elements (such as columns and step/bench coverings), colored floors, and stone pavements, to the poorest houses with packed dirt floors. Structure size, as well as their stratigraphic depth, often inhibits complete excavation. It is worth mentioning that one of the most extensive terrace excavations at San Lorenzo revealed a multi-room domestic structure with masonry walls, paved floor, and sub-floor aqueduct or drain that has a minimum spatial extent of 224 m^2 (Fig. 4.5) and, as well, forms part of a domestic cluster covering 800 m^2 (Arieta 2009). Whereas the low surface mounds at San Lorenzo (Coe and Diehl 1980:I:29–30) have been rejected as Olmec house platforms (Cyphers 1997b), floors found at deeper levels through the site reveal that greater size and functionally discrete room divisions correspond to higher status, which in turn correspond to higher elevation on the site, such that the concept of a "sacred hill" may have been an early template for internal spatial social arrangement. Pool's recent characterization of the typical



4.5. Plan map of principal construction features of a San Lorenzo phase dwelling which illustrates room differentiation, paved floors, subfloor aqueduct and mud and stone walls.

Early Preclassic Olmec dwelling as a 3 by 5 m structure is not supported by the archaeological data from San Lorenzo and its hinterland (2009:246).

The discovery of a remarkable construction, the Group E architectural precinct (Cyphers et al. 2006; Cyphers and Di Castro 2009), makes it necessary to revise previous assessments that no notable Early Preclassic mounded architecture was present at San Lorenzo (Cyphers 1997a, 1997b, 1999). Nearly 300 m^2 of excavation and more than 100 auger cores reveal that this buried precinct, composed of northern, eastern, western, and southern platforms surrounding a central sunken patio, covers about 10,000 m^2 (Fig. 4.6).[2] With a multi-stage construction and continuous occupation sequence through the San Lorenzo phase, the complex stood several meters above the ancient exterior ground surface in its final building phase, conspicuous for its large size, unusual construction style, and central position. Four associated stone sculptures (a large throne, SL-14; a 181 m long stone aqueduct; a colossal head, SL-61; and an anthropomorphic stone standard bearer, SL-52) help in appreciating its special qualities and interlinked cosmological connotations, which highlight rulership, ancestor veneration, water, and the underworld. Private ritual was conducted in its interior, with public ritual staged outside. Both construction phases show ritual destruction and the placement of offerings on the patio floors. Group E's layout is evocative of later period architectural complexes, such as platforms bearing sunken plazas and temple groups. The themes shared by the stone monuments impart additional reinforcement for interpretations of sunken patios as the symbolic access to a watery underworld in the Olmec belief system (Reilly 1999), as well as in other Mesoamerican cultures. Concepts of sovereignty, ancestry, water, and the underworld are imbedded in its blueprint and non-domestic artifacts. Specialized public and private functions varied spatially in and around the complex, as exemplified by the northern platform's link to maximum regional leadership, the eastern platform's burial and veneration of an ancestral ruler, and the southern platform's connection to water. Its symbolism seems to parallel Reilly's symbolic model of the Olmec universe as applied to La Venta's Complex A, in which the enclosed court is conceived as an otherworld and ancestral location. In sum, the Group E complex is an extraordinary example of the early architectural and conceptual sophistication of the San Lorenzo Olmec and appears to be tangible evidence for the development of complex sociopolitical institutions.



4.6. Hypothetical reconstruction of the Group E architectural precinct based on excavations and coring. Its approximate size is 10,000 m^2. Several important stone monuments are shown in their original position. The inset shows architectural details discovered in excavation.

The relative proximity of the Group E precinct to Group D structures suggests to Richard Diehl (2004:36–40) that such constructions, and others nearby, form the rulers' home, a royal compound. However, the nature of structures and activities located across the highest part of the site may be a sign that the whole central plateau's upper surface was an area of privileged pursuits linked to political authority. For example, suggestive spatially restricted elements include the recycling of extremely large monuments—in one case associated with a known sunken patio. A second example consists of a structure with connotations of warfare: a bas-relief representation of what appears to be a scantily clad fallen enemy warrior was placed beneath the floor (Zurita and Cyphers 2008) so that occupants would tread on him, a symbolic act similar to that reported for the Maya (Marcus 1974). In the third case, recent auger coring indicates very clearly that, despite construction obscuring it from view, the Olmec planned and located privileged buildings and activities precisely on the highest part of the natural landform that underlies the artificial plateau, thus reserving at all times the sacred heights for the noble sector.

San Lorenzo's plateau (Fig. 4.4) was surmised to be major monumental architecture by Coe and Diehl (Coe 1989a:80; Coe and Diehl 1980; Diehl 1981), but the proposal that it represents a huge bird effigy has not been popular (e.g., Flannery 1982; Diehl 1981; for a different viewpoint, see Diehl 2004:36) insofar as millennia of erosion have affected its original terraced appearance (Cyphers 1997a:102). The tendencies to ignore labor calculations done in the past (e.g., Heizer 1960, 1966; Velson and Clark 1975), which derive largely from gaps in our knowledge about ancient technology, feasibility, and labor organization, should be reversed, with new attention paid to the constraints and possibilities available to the Olmec. Recent auger coring at the site during 2005, 2006, and 2007, stratigraphic analyses, and digital modeling provide preliminary calculations of the volume of earthen fill that was placed during the San Lorenzo phases; that volume falls in the range of six to eight million cubic meters of construction fill (Cyphers et al. 2008–2007; Cyphers et al. 2014). If Robert Heizer's rough calculations (1960) for dry season labor are used as a basis for general comparison, then San Lorenzo's plateau construction would have involved more than 50 times the manpower that was used in building La Venta's great pyramid. It has about seven times the volume of the Pyramid of the Sun at Teotihuacan and is roughly equivalent to 50 Temple I's at Tikal.[3] An approximation (based on Heizer 1960) suggests a massive and intensive labor investment in plateau building that would have required approximately 1400 able-bodied men working during yearly episodes of 100 dry season days (Heizer 1960; Velson and Clark 1975) over a period of 300 years. If compared to population estimates based on survey, this strongly suggests the compulsory participation of the bulk of able-bodied men from San Lorenzo and its near hinterland in these building activities. The moving of stone monuments and the construction of other buildings likely were additional obligatory enterprises. As the largest Early Preclassic monumental work thus far known in Mesoamerica, the effort and organization involved in plateau construction far surpass that of any other contemporary edifice and of many later ones.

REGIONAL ORGANIZATION

Regional settlement studies began with Philip Drucker and Eduardo Contreras' (1953) unsystematic survey, followed by Edward Sisson's (1970, 1976) milestone work in the Chontalpa. Beverido (1987) defined centers based on the architectural pattern of parallel long mounds and conical mounds defining plazas, similar to La Venta's visible architecture, once considered an architectural hallmark of the Olmec (Coe 1981b). Hernando Gomez's survey of principal sites in the Coatzacoalcos and Papaloapan drainages, the first to effectively distinguish between Classic and the Olmec occupations (1996a), clearly assigns this architectural arrangement to the Late and Terminal Classic periods (see also Borstein 2005).

The combined efforts of all recent survey projects (e.g., Borstein 2001, 2008; Kruger 1996; Lunagómez 2010; Jiménez 2008; Sisson 1976; von Nagy 1997, 2003; Killion and Urcid 2001; Santley et al. 1997; Rust and Sharer 1988; Symonds et al. 2002) have covered only about 10% of the Olmec heartland. Difficulties in comparing even these limited survey results include the use of dissimilar chronological frameworks, survey methodologies, and site definitions, all complicated further by visibility problems associated with dense land cover and alluvial deposition.[4] The recognition of environmental changes is important for surveys in this region since geomorphological studies conducted around La Venta and San Lorenzo, respectively, show that the coastal and riverine environment has varied since Olmec times due to lateral shifts in river courses and tectonic uplift (Jiménez 1990; Cyphers and Ortiz 2000; Ortiz and Cyphers 1997; von Nagy 2003; West et al. 1969).

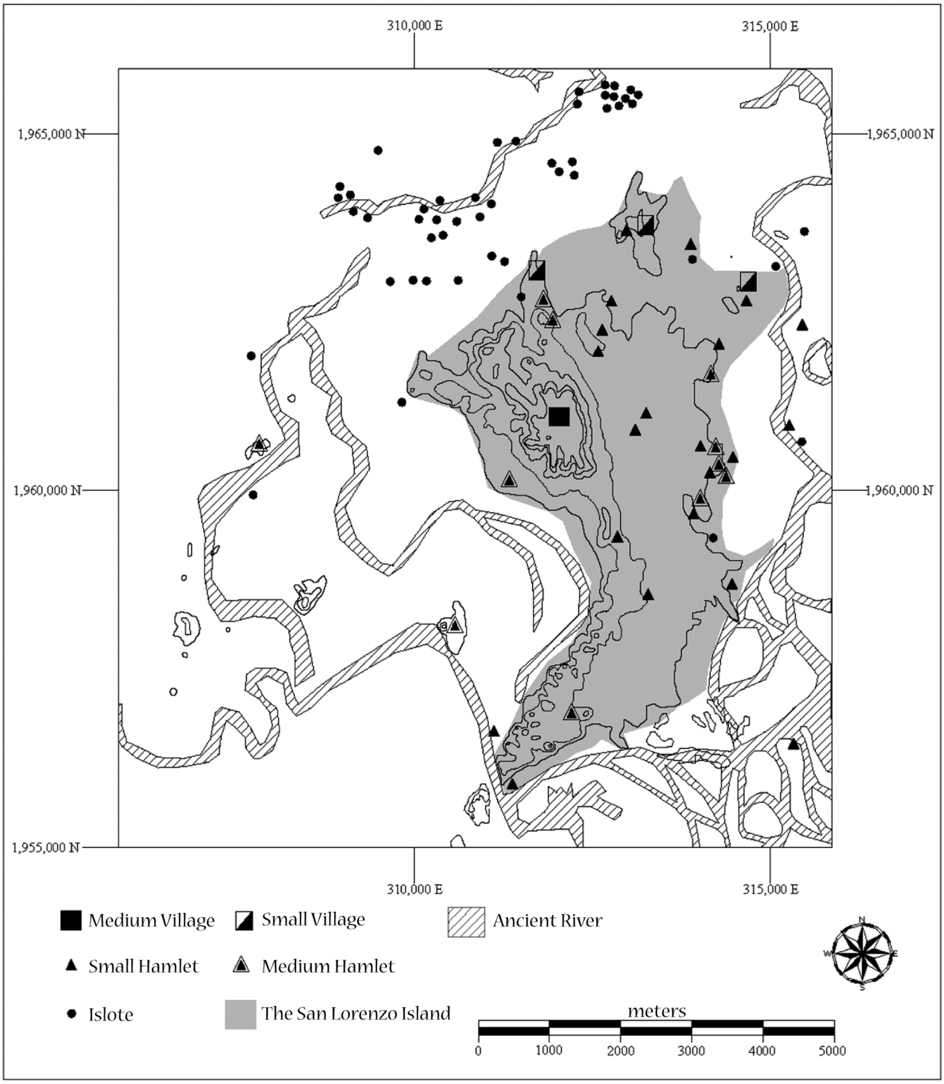
Prior to 1800 cal BCE there is no clear evidence for human occupation in the San Lorenzo region, which is most likely a result of poor surface visibility. The Tuxtlas pollen evidence suggests limited forest clearance and some cultivation (Goman and Byrne 1998) but such occupation has yet to be recorded archaeologically (Santley et al. 1997).

For the Initial Early Preclassic period, there is considerable settlement evidence from the San Lorenzo region but less is known about other portions of the heartland. In Tabasco, a handful of sites are reported along the Barí and Blasillo rivers, including Isla Alor, San Andrés, Isla Chicozapote, Isla Yucateca, and three sites within La Venta proper (Rust and Sharer 2006). Barí pottery at San Andrés (Rust and Sharer 1988; Rust and Leyden 1994) has been identified as the earliest evidence of occupation in the La Venta region, while the Pellicer complex (Sisson 1976; von Nagy 2003) may be the earliest in the Chontalpa region to the east.

In the central Tuxtlas, an evaluation of this time period is impossible due to the chronological phase that subsumes these phases with the later San Lorenzo phase (see Santley et al. 1997:179). In the Tuxtlas foothills (Borstein 2008) no dominant site was found and contemporary occupation appears as a dispersed population moving into preferred wetland environments, constituting initial colonization from unspecified origin(s).

The largest population concentration (262–625 people) during the Initial Early Preclassic on the Gulf coast appears around San Lorenzo (Fig. 4.7), which is located in a privileged geographical setting involving a river island surrounded by ample floodplains and river channels and lagoons (Cyphers and Ortiz 2000; Symonds et al. 2002; Ortiz and Cyphers 1997). Population density on the San Lorenzo Island was around 22 people per km^2 on permanently inhabitable terrain. Subsistence activities concentrated on wetland aquatic resource procurement, hunting, collecting, and some agriculture (Symonds et al. 2002). Settlement preference for elevated terrain close to permanent water sources was integral to their way of life and also an important part of their world-view (Symonds et al. 2002; Stark 2000).

San Lorenzo, a 20 ha village, was surrounded by several clusters of smaller villages that in turn were encircled by hamlets of varying sizes. Sixty-two percent of the regional population resided on the San Lorenzo Island, with another smaller concentration to the west around Estero Rabón, which appears to have been an aspiring equal and a competitor of the larger village of San Lorenzo. Competition between the two villages would not



4.7. Settlement distribution during the Initial Early Preclassic (Ojochi-Bajío phases) in the inner hinterland of San Lorenzo, which is the medium village located in the center of the map.

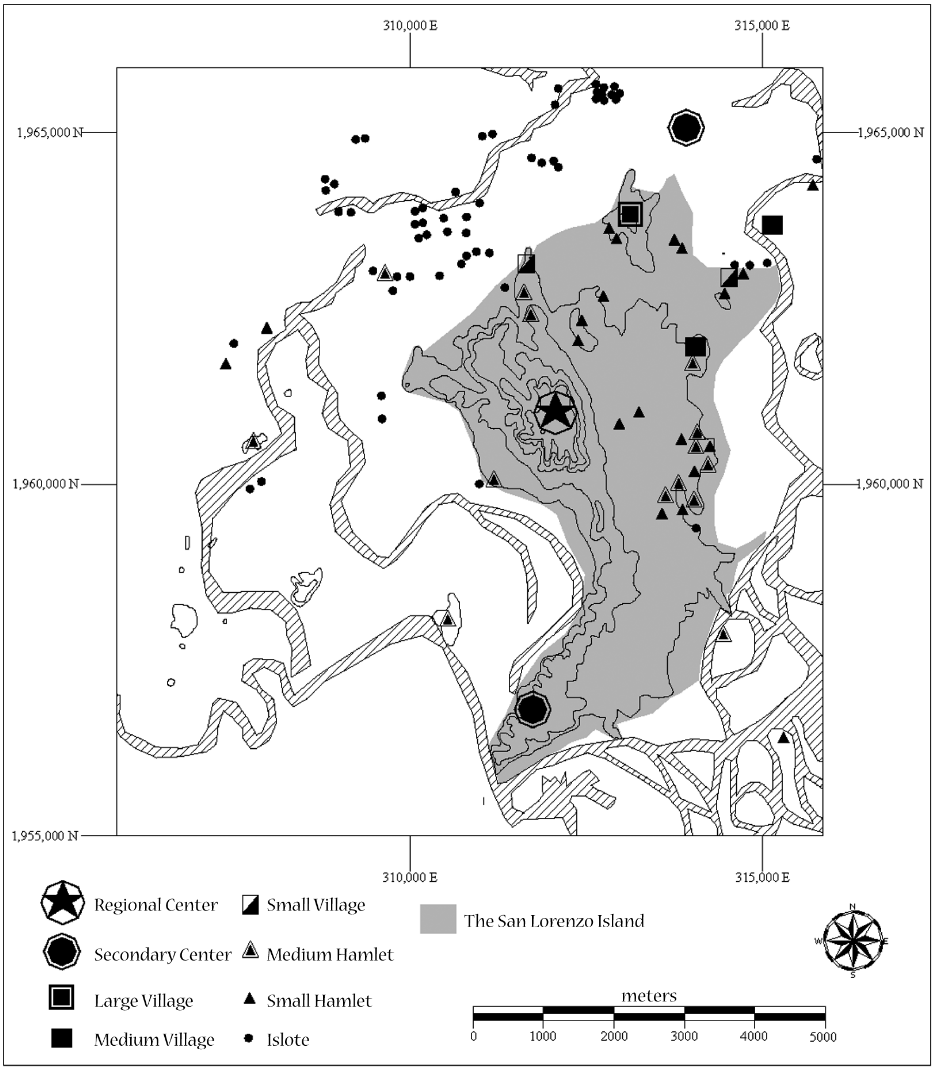
appear to be related to a struggle for subsistence resources in light of the generally low regional population levels, but perhaps it was for human resources. This time period, although lacking in monumental stone art, shows evidence for early architecture that appears in the interfluvial wetlands of the San Lorenzo Island, whose great productive potential was recognized by the Olmec. Distinctive archaeological indicators of intensive exploitation date from 1800–1400 cal BCE and take the form of 47 artificial earthen platforms, called *islotes*, built near or upon the ancient river levees, which are possible evidence for subsistence specialization and usufruct rights.[5]

In the Tuxtlas foothills the pre-San Lorenzo phases show little occupation, only a few hamlets and other small sites, possibly campsites, located on the floodplains of the San Juan and Tizapa rivers, and there is no evidence for a significant exploitation of basalt boulders at nearby Llano del Jícaro (Borstein 2001, 2008). In general, although differentiation among permanent settlements seems minimal, this may be a consequence of poor surface visibility, especially in light of the presence of the ritual site of El Manatí (Ortiz and Rodríguez 2000; Ortiz et al. 1997; see also Diehl 2004:27) that shows that the Olmec landscape held an array of meanings and functions with early cosmological concepts well established in the Initial Early Preclassic.

In sum, the Ojochi-Bajío phases show the highest heartland population concentration on the San Lorenzo Island, with some settlement differentiation across the lowland landscape and with the largest villages in competition for certain resources. The initial colonization of upland areas followed the river systems. A greater reliance on aquatic resources, hunting, collecting, and probable manioc cultivation dominated subsistence, with a lesser interest in maize indicated around San Lorenzo.

The San Lorenzo phase, one of the most densely occupied phases in the history of the region, was a time of major sociopolitical changes (Fig. 4.8). Population exploded, with an 18-fold increase over the previous phase, to 8554–18,735 inhabitants. The concentration of 226 sites in the 400 km^2 survey area around San Lorenzo, with 97 of these sites falling on the 75 km^2 of the San Lorenzo Island (Symonds et al. 2002), constitutes a population agglomeration with no known parallels in Early Preclassic Mesoamerica. Island population density on permanently inhabitable terrain reached 600 people per km^2. At this time San Lorenzo's central core or plateau is notable for its size and complexity of occupation, and the capital attained its maximum size of 690 ha, with a resident population ranging between 5000 and 10,000 inhabitants. Although some scholars have manifested skepticism about this size assessment (e.g., Flannery and Marcus 2000:4; Spencer and Redmond 2004:185), recent 20 m interval cores across the site confirm this calculation (Cyphers et al. 2008–2007).

In the 400 km^2 study region, San Lorenzo dominated a population of about 13,000 people distributed in at least five other types of permanent sites. San Lorenzo occupied a nodal position on the Island and was surrounded by four lesser centers. Increasing settlement differentiation is illustrated by the specialized sites, such as the 59 *islotes*, bitumen-processing



4.8. Settlement distribution during the San Lorenzo phase in San Lorenzo's inner hinterland.

sites (Wendt 2003a), causeways (Cyphers and Ortiz 2000; Ortiz and Cyphers 1997), and the ritual site of El Manatí (Ortiz and Rodríguez 2000; Ortíz et al. 1997), which also is one of several locations where red hematite may have been extracted.

Settlement distribution points to the existence of transportation networks designed according to natural fluvial and terrestrial pathways (Symonds et al. 2002). Often, the nature of the region's topography—in other words, strands of high ground set in vast floodplains—leaves little alternative for the location of communication routes. The selective layout of planned routes is suggested by the patterning of key site locations at fluvial intersections and the causeways in the San Lorenzo hinterland (see Ortiz and Cyphers 1997). For example, San Lorenzo's location could facilitate the fluvial and terrestrial transportation and communication management via the secondary and tertiary centers (i.e., Loma del Zapote, El Remolino, Tenochtitlán, Estero Rabón), each strategically situated in the semi-radial fluvial system centered on the Island. Within the Island, San Lorenzo and Tenochtitlán may have once been rivals but the latter site appears to have eventually been integrated into the emerging power sphere of the former. The principal western competitor of San Lorenzo, Estero Rabón, occupied a favorable position to intercept upriver groups moving along the fluvial courses and to access local hematite sources.

The founding of Laguna de los Cerros as a 50 ha village in the San Lorenzo-A phase is not accompanied by a significant regional settlement development in the Tuxtlas foothills (Borstein 2001, 2008). Small and large villages, hamlets, and floodplain sites form the settlement panorama at this time in the foothills, showing only a minor degree of site differentiation. It perhaps was founded in this phase by San Lorenzo in order to have a permanent base close to the nearby basalt flow at Llano del Jícaro (Medellín 1960; Gillespie 1994) and other workshop sites. The often mentioned singular sculptural style of some monuments from Laguna de los Cerros may have been the innovative products of pioneering sculptural endeavors.

The first half of the San Lorenzo phase shows two different trends—significant population growth and expansion into the Tuxtlas foothills, and the growth of Estero Rabón as a secondary center in San Lorenzo's immediate hinterland. Overall, the heartland settlement picture is one of colonization moving along the lowland and upland rivers and the establishment of key sites in strategic places. The abrupt appearance of Laguna de los Cerros in the San Lorenzo-A phase may point to San Lorenzo's early involvement in the founding and management of regional populations, which may have included conquest. It seems that the expansion and development of rural populations were not encouraged, and certain population rearrangements would have facilitated access to human labor.

The great population growth and nucleation during the second half of the San Lorenzo phase on the San Lorenzo Island, which is paralleled by trends around Laguna de los Cerros, suggests regional population movements as centers attracted more and more people. The growth of Laguna de los Cerros accelerates in the San Lorenzo-B phase as it became a regional power dominating the Tuxtlas foothills and perhaps beyond, conceivably changing the nature of its relationship to San Lorenzo. Mutual antagonism reflected by the regular spacing of major Gulf coast centers (Bove 1978; Earle 1976) may be due to competition or warfare. Interestingly, both Laguna de los Cerros and the San Lorenzo Island have sculptures representing possible conquest or domination, as well as monuments showing weapons. The increasing political role of sites such as Cruz del Milagro, Cuatotolapan, La Isla, Tres Zapotes, Loma de la Piedra, Zapotitlán, Piedra Labrada, Chiquipixta, and Emilio Carranza is illustrated by their possession of stone sculptures (Fig. 4.1).

Despite Laguna de los Cerros' 300 ha size and importance, settlement development is poor; it is surrounded only by five large and small villages and a crowd of small hamlets, corresponding to four settlement tiers. Laguna de los Cerros seems to have had multiple roles, first, as a major center in its immediate region, and second, as a subordinate center or estate whose principal services for the riverine capital of San Lorenzo included the procurement and manufacture of small and large stone items. Transport of large sculptures or preforms to San Lorenzo from the Llano del Jícaro workshop at this time or earlier would have necessarily entailed the participation of a greater population of able-bodied men than was available in the immediate hinterland of Laguna de los Cerros, suggesting close ties between the centers that enabled the mobilization of manpower. Increased monument recycling tendencies at San Lorenzo may be a sign that these services suffered a reduction during the latter part of the San Lorenzo-B phase, with the reduced availability of large basalt boulders at Llano del Jícaro, competition between the rulers of Laguna de los Cerros and San Lorenzo, and La Venta intervention as possible causes.

In the central Tuxtlas, occupation at 1200 cal BCE shows a relatively egalitarian setting manifested as a cluster of small villages near the bifurcation of the Catemaco River (Santley et al. 1997:181). This has been interpreted in various ways: (1) as physical conquest by major lowland centers in order to obtain basalt and other resources; (2) as an initial colonization of the central Tuxtlas; or (3) that Tuxtlas egalitarian societies (pertaining to separate political entities and unrelated to Tres Zapotes) participated in regional networks between 1400 and 1000 cal BCE as a consequence of economic crises consequent to volcanic eruptions (Santley et al. 1997:185–86, 200–201). In general local events are viewed as somehow different from the riverine Olmec lifeways due to the absence of monumental art, a complex sociopolitical hierarchy, and diagnostic pottery motifs which are offered as evidence of sociocultural variability and processes of ethnic differentiation within the Olmec heartland (Arnold 1995; Pool 2006a; see also Diehl 2004:13) and a lack of incorporation in the Olmec political realms (Pool 2007:132; 2010; Santley et al. 1997:210). The possible relationships of the central Tuxtlas to adjacent areas requires taking into account the center of Laguna de los Cerros as a possible factor influencing the notable site clustering in the southern portion of the surveyed area and, as well, nearby sites known to have Olmec elite status materials, such as Piedra Parada and Zapotitlán. Due to chronological divisions that are incompatible with the San Lorenzo sequence, settlement patterns coeval with the apogee phases of San Lorenzo and Laguna de los Cerros are not discernable, but the subsequent phase in the central Tuxtlas, 1200–400 cal BCE, which lumps the peak periods of San Lorenzo and La Venta, shows three settlement tiers, a salt extraction site (Santley 2004), and an 88% population increase (Santley et al. 1997:187).

Given the pre-1400 cal BCE low population density and the purposeful establishment of Laguna de los Cerros in the early San Lorenzo phase, the question of a possible "frontier" or cultural interface in the Tuxtlas is raised, which cannot be adequately evaluated on the basis of presently available data. Even if the central Tuxtlas once had an independent political organization, the existing sparse data hint that it eventually became somehow linked to the great riverine capitals.

What is occurring around La Venta during the Early Preclassic period is not totally clear since few sites have been registered (Sisson 1976; von Nagy 1997:267; Raab et al. 2000; Rust and Sharer 1988, 2006). A central issue has always been whether or not La Venta was a major competitor of

San Lorenzo's during the latter's apogee due to shared sculptural similarities.[6] There may be some temporal overlap in their occupations (Gonzalez 1990, 1996; Grove 1981b; Lowe 1989b), but the early size and complexity of La Venta is as yet unknown. Current research provides the initial outline of La Venta's development from the Early Preclassic onwards (Rust and Sharer 1988, 2006). William Rust and Robert Sharer (2006) attribute the emergence of social stratification to a shift from local village access to preferential trade and food production locations by a more centralized group at La Venta itself.

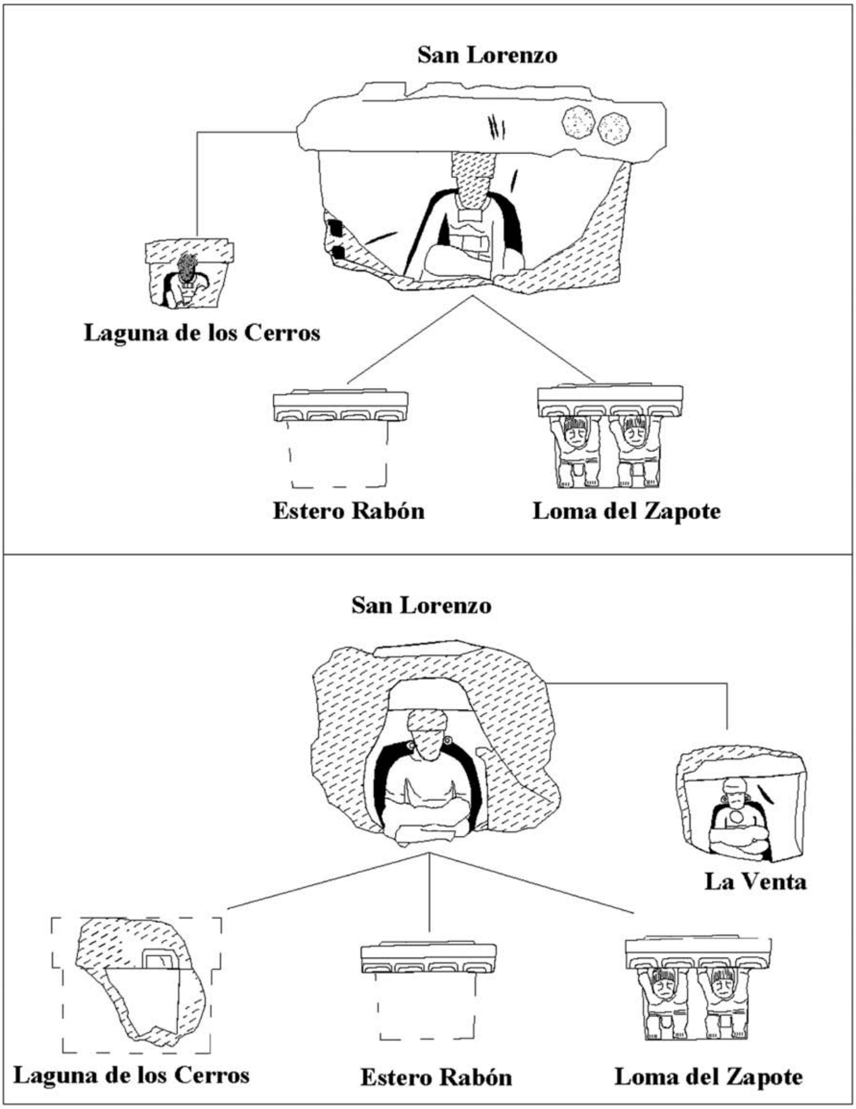
Overall, settlement growth in the known sections of the Gulf coast lowlands shows the emergence of an unusually dense population concentration on and near the San Lorenzo Island during the San Lorenzo phases, perhaps akin to what Stark calls a "capital zone" (1999). In light of lighter population densities further away, such an agglomeration raises the question of population rearrangement such as local or regional migrations and resettlement. As labor-expensive projects increased in size and frequency, population aggregation would facilitate the command of human labor resources. The establishment of new sites near specific resources and the creation of ties with possible competitors and allies formed part of a regional integration strategy.

Monumental art may provide elements that are useful in the analysis of political organization, as in the case of the Maya (e.g., Flannery 1972; Marcus 1973, 1974, 1976a). Although lacking in inscriptions, Olmec monuments provide indirect evidence of political organization based on the size, meaning, and distribution of monumental stone sculpture—an approach that has been both embraced (Diehl and Coe 1995) and decried (Flannery and Marcus 2000:5–6). Perhaps a chiefdom organization may be capable of the labor expenditure represented by San Lorenzo's 450 tons of stone sculpture, however, the opposite view is perhaps best represented by Stark's statement that "[i]nterestingly, no historic chiefdom matches the degree of mobilization of public labor and specialist skill that are indicated by the Gulf Olmec 'art' and architecture" (2000:35). This impasse likely has no resolution in the near future, but the comparison of monument distributions and regional settlement patterns may shed some light on this question.

Aside from the general rule of thumb correlating site importance to the number of stone monuments (see Gillespie 2000a; Grove et al. 1993), there is a pattern of large sculptures explicitly associated with rulership that occur in the most important sites. Of the two notable forms with this theme, thrones and colossal heads, only the former are not recycled pieces, hence their variable sizes are directly related to the degree of control over stone and labor resources. Interpretations of throne form and iconography suggest that these seats of power contain messages regarding the identity of the ruler and his right to rule based on his hereditary distance to the apical ancestor of his corporate descent group (Grove 1970, 1973). As symbols of rulers, their "houses," and houses' history, thrones served to endorse and differentiate property rights through supernatural connections (Gillespie 1999), to mark the succession to office, and to distinguish the regional chain of command (Cyphers 2004a, 2008; see also Porter 1989:27).

Types of thrones appear to represent a well-defined chain of regional command composed of at least three levels, while the Early Preclassic spatial distribution of all stone monuments in the Olmec heartland suggests at least four levels in the regional political system. Throne size and iconography correlate well with site size and importance in regional settlement studies, which strongly suggests that thrones served as emblems for sites and political entities as well as for rulers and "houses." In the San Lorenzo region, the capital is the only place with large thrones with explicit ancestor iconography, while smaller thrones identical in size and symbolism are found at the secondary centers of Loma del Zapote and Estero Rabón (Fig. 4.9). Even as these latter pieces indicate their rulers occupied similar political levels in the system, the absence of iconography manifesting the divine genealogical charter may suggest that principles other than kinship were implicated in their taking office. Large and small thrones with nearly identical ancestor imagery also may indicate a chain of command with a different twist—the placement of the San Lorenzo ruler's close kin, possible heirs, as rulers of lesser centers or estates such as La Venta and Laguna de los Cerros (Cyphers 2008; see also Clark 1997).

The isolated occurrence of small- to medium-sized anthropomorphic and transformation sculptures at lower level sites (Fig. 4.1) may indicate an additional level of command in the regional system (Symonds et al. 2002; Cyphers and Zurita 2006a; Clark 1997). The seemingly dispersed distribution of nodal communities, each with at least one monument, seems to obey principles similar to those observed around San Lorenzo where the judicious location of secondary and tertiary sites at river confluences and other nodal sites points to the integration of a fluvial and terrestrial com-



4.9. Hypothetical reconstructions of the relationship of San Lorenzo to other centers during two different moments. Throne size and iconography illustrate the reconstructed chain of command which is supported by regional settlement patterns in the case of San Lorenzo, Laguna de los Cerros, Estero Rabón and Loma del Zapote.

munication web (Symonds et al. 2002; Cyphers and Zurita 2006b). Rural sites may have participated in periodic activities by including their monuments in centrally sponsored rituals (Cyphers 1993a, 1994, 1999). Such ritual participation could create and maintain certain identities and increase social and religious integration by promoting the lateral unification of a poorly developed distant hinterland in the belief system. Also, organized activities of this nature could forge pathways for dependency relationships, trade, and social interaction. In this way, difficulties in sociopolitical integration and in the movement of people and goods could be offset in the vast deltaic plains and uplands.

RESOURCE EXPLOITATION, CRAFT PRODUCTION, AND EXCHANGE NETWORKS

Fundamental issues involve the relative order of appearance of exchange networks and social stratification and the possible role of the former in stimulating the latter. The Ojochi-Bajío time frame would seem particularly important in this respect due to its antiquity. Pertinent materials consist primarily of obsidian, bitumen, and basalt artifacts, with the latter two available in the heartland. The relatively low population densities near the basalt and bitumen resources suggest that competition likely was not involved in their procurement.

During the San Lorenzo A and B phases, internal heartland trade (and/or procurement; see above) concentrated on the following locally available materials: (1) basalt for utilitarian grinding tools and sculpture (Williams and Heizer 1965; Coe and Fernández 1980); (2) sandstone for sculpture and as abrasives; (3) bitumen (Wendt 2009; Wendt and Lu 2006; Wendt and Cyphers 2008) for sealing, lighting, and waterproofing; (4) pigments (Coe and Diehl 1980:I:16–18); (5) rubber[7] (Hosler et al. 1999); (6) crocodile teeth; (7) salt; (8) foodstuffs (Symonds et al. 2002); (9) limestone; and (10) ceramic vessels. There perhaps was interest in perishable goods such as cacao (Stark 1974:218; Powis et al. 2011), cotton (Stark 1974; Stark et al. 1997), tobacco (Furst 1968, 1995), precious woods, shells, basketry, feathers, animal hides, gourds, turtle shells, and stingray spines. In the case of most items, we have no idea how or who produced or procured them; however, in the case of basalt and bitumen, material analyses point to the exploitation of various sources, which probably is also the case for pigments.

Bitumen procured from a variety of open seeps was processed or prepared in domestic contexts at specific sites for local consumption and export (Wendt 2003a, 2009; Wendt and Lu 2006). Initial source analyses are not conclusive because further temporal refinements are necessary in order to evaluate the questions of independent exploitation by individuals and communities or the existence of different procurement networks (Wendt and Lu 2006). Surface survey included an area with bitumen deposits in the San Lorenzo region (Symonds et al. 2002), but due to overlying modern occupation, it is unclear if there was a community there that was dedicated to its extraction.

Without a doubt, basalt was the principal non-perishable inorganic resource moved within the Olmec heartland and it shows an ample spatial distribution in the form of sacred symbols and utilitarian products. Its use in monumental sculpture began sometime in the San Lorenzo-A phase. Basalt was by no means scarce, although appropriate locales for stone-working and subsequent transport of sculpture may have been limited since the Olmec sought locations with large surface boulders and a terrain propitious for monument conveyance. Knowledge of sculpture production was not shared but was restricted to specific locations. Some workshops, such as Llano del Jícaro (Gillespie 1994; Medellín 1960), could not produce sculpture year-round due to the seasonal presence of standing water (whose subsurface percolation is inhibited by the underlying basalt stratum), but smaller surface stones for making grinding implements could be easily moved to other places for rainy season tool production. Another workshop located less than 10 km from Llano del Jícaro has been discovered (Killion and Urcid 2001). In general, it seems that scuplture and preform production *per se* was not an economically significant activity since it required relatively few skilled craftsmen. It was the labor involved in the movement of these products to their final destination that represented the greatest cost.

The abrupt founding of the large village at Laguna de los Cerros in the San Lorenzo-A phase appears to be related to initial interest in this resource and the early production of stone items, and since this site had insufficient human resources to physically command the basalt workshop and export the sculpture, there is the distinct possibility that San Lorenzo was directly implicated in its production, but the exact mechanisms are unknown. The situation appears to have changed in the San Lorenzo-B phase when Laguna de los Cerros became more important, attained greater autonomy, and headed a complex three-tier settlement organization. It may have become more directly involved, perhaps usurping production management and expanding it to at least seven separate places on the basalt flow to meet increasing demand.

Among the various workshops at San Lorenzo, the Group D monument storage and recycling area, which is located within an ostentatious dwelling, stands out as a case of attached production (Cyphers 1999). Another workshop at San Lorenzo contains many tons of multi-drilled ilmenite blocks.[8] Not only are such artifacts carefully accommodated in three subterranean pits, but others are also present on an occupational surface containing greenstone polishing tools, drill bits, drilled and shaped greenstone artifacts, flakes and chunks, drilled basalt beads, and worked iron-ore ornaments, which are suggestive of multi-crafting activities (see Hirth 2009) that include polishing and drilling. Because their sequential perforations appear to be the product of their use as a bearing in a drilling apparatus, the discarded artifacts may be wasted tools (Cyphers and Di Castro 1996; Di Castro 1997).[9] The motivation for stockpiling them in subterranean pits perhaps was to reserve this imported ore with marked crystalline veins for later production of low-quality reflective status paraphernalia, and/or simply to keep it out of circulation, which was imperfectly achieved since tiny amounts are found in domestic contexts at several locales.

Some of the above heartland resources and products were traded throughout Mesoamerica during the San Lorenzo phase, for example, bitumen (Wendt and Lu 2006), ceramic vessels (Blomster et al. 2005; Herrera et al. 1999), and probably so far undetected perishable items. Incoming materials included obsidian (Cobean et al. 1971; Cobean et al. 1991), iron ore objects including solid mirrors, ilmenite blocks (Di Castro et al. 2008; Pires-Ferreira 1975, 1976; Pires-Ferreira and Evans 1978) and mosaics, mica, quartz crystals, and diverse greenstones and other metamorphic stones. Sculptures are not known to have been moved outside the heartland area. It is clear that widely distant peoples were in contact at this time, but their specific social relations and the means of exchange remain uncertain. It is mostly assumed that long-distance trade in exotics occurred between and among elites rather than via professional merchants. Although the use of exotic items in heartland rituals and exchanges may have enhanced elite status and served the purpose of keeping followers contented, it is hard to imagine that relatively minor-scale, intermittent exchange and the distribution of ritual "perks" such as obsidian tools, mirrors, and the like had any major impact on the heartland economy or significantly contributed to the social and political backing and power that Olmec leaders required.

THE EMPIRE STRIKES BACK?

John Clark's proposal on the subject of Olmec government focuses on certain material expressions—particularly monumental and portable art and public works—that figured actively in political rituals designed to manipulate belief systems (1997). His perspective places government within the religious and political realms, and it seemingly attempts to divert focus from the state and concentrate on political motivation and related technologies. Carefully threaded through the article are the main components of a developmental model for a supreme Olmec ideology in the Early and Middle Preclassic periods, a rather familiar thought since it also appears in Caso's, Bernal's, and Coe's discussions of an Olmec empire.

Clark contends that images of Olmec kings appear chronologically later than the Chiapas figurines that he interprets as village shaman chiefs. This linear evolution indirectly supports his familiar argument that the more complex Mokaya of the Soconusco influenced the rise of Olmec civilization. Chronologically the early kings precede the Middle Preclassic divine kings with shamanic powers. This chronological framework, the purported shift in power paradigms, and the artifact interpretations may seem questionable, but they are vital to the argument.

According to Clark, early Olmec ideology was composed of two facets, one related to origin myths and the other to the supernatural. In the heartland region, the rulers were most concerned with creation myths and social superiority and not with access to the supernatural. Rulers *cum* ballplayers, as represented in San Lorenzo figurines, were the embodiment of the association of rulers with creation myths and the importance accorded the physical prowess of these leaders. The second facet, the supernatural, is represented by pottery vessels decorated with cosmological concepts ("dragon pots"), which are inferred to have been used in heartland rituals to invoke sacred beings, but when found in distant regions are considered evidence of the hinterland's alliances with the heartland and of the search for exterior status trappings. As these material expressions facilitating access to the supernatural conform to an expansionist strategy, a further implication is that, as other regions developed greater social differentiation and adopted or imitated Olmec forms of political organization, the Middle Preclassic Olmec rulers then withdrew "dragon pots" from circulation in order to monopolize access to the supernatural realm as their basis for power. Consequently, it would appear that the ever flexible Olmec leaders would have reestablished, rediscovered, and again put into practice the ideological bases of their supreme religion for the next wave of expansion.

Despite Clark's gripping argument which follows closely on the heels of his predecessors, the issue of the extent of the Olmec's political sovereignty remains a tenuous matter. Previous sections of the present chapter have shown that their political influence in the heartland was variable over time and space, although it is possible that by the end of the Early Preclassic they were able to achieve extensive regional integration. To date there is no clear-cut evidence for their military expansion out of the heartland or for their sovereignty over far-flung places in this time period, so the "empire" concept seems to have little applicability.

FINAL OBSERVATIONS

The critical time period for understanding the emergence of complexity and centralization in the Olmec heartland is the initial Early Preclassic. The proposals regarding pre-1400 cal BCE migrations are not upheld by the present data, so it is preferable to think in terms of a fundamentally local development (however, not without external contacts). As noted above, the model proposed for the emergence of rank society in the Soconusco which involves competitive feasting sponsored by aggrandizers is not compatible with the available evidence from the Olmec heartland, either as a consequence of Isthmian migrations or as in local development.

A major theory by Coe and Diehl (1980) regarding the emergence of social stratification centers on competition for scarce river levee lands. Given conditions of normal demographic growth and sufficient food production, this competition led to inter-group conflict and the eventual domination of the levee owners over others. Their proposal is based largely on ethnographic analogy and ecological studies but lacks empirical support regarding population growth, competition, and conflict arising over these lands, their use for maize cultivation, and crop productivity. As Kent Flannery wrote, "It would be difficult to find a single aspect of the model that depends heavily on the archaeological discoveries made at San Lorenzo between 1966 and 1968" (1982:446). Recent research does not support their model insofar as several lines of evidence suggest that levee cultivation was of less interest than recessional floodplain agriculture and the exploitation of aquatic resources (Cyphers 2009; Cyphers and Zurita 2012; Symonds et al. 2002; see also Stark 2000). As well, Lane-Rodríguez and collaborators (Lane 1998; Rodríguez et al. 1997) compare the production of maize on levees and uplands around San Lorenzo over a two-year period in 1991 and 1992 for winter (*tapachol*) and rainy season (*temporal*) plantings, concluding that, despite the greater fertility of levee soils, when winter rainfall is insufficient, productivity tends to be less than on upland soils.[10] It is important to note that later studies indicate climatic fluctuations (Haug et al. 2001; Goman and Byrne 1998) that created winter droughts detrimental to levee agriculture (see also Coe and Diehl 1980:II:140, who recognized this as a potential flaw in their model), thus supporting the observation of increased risk in levee cropping.

Another model involving the appropriation of scarce resources and cosmological principles intertwines the development of economic infrastructure and sociopolitical leadership (Cyphers and Zurita 2012). In this view, founding groups arrived at the San Lorenzo Island, which was composed of a natural hilly terrain circumscribed by a wet riverine wilderness. Attracted there by the subsistence opportunities and the natural geographical conditions favorable for defense, protection against flood disaster, and the organization of communication and transport, they did not delay in recognizing the economic advantages afforded by specific portions of the natural environment. In this period of climatic drying, the wetlands in the northern part of the Island may have been particularly attractive due to their superior water capture over upriver and downriver areas, high fertility, and subsistence resource concentration. Under conditions of little trade and minimal storage possibilities in the tropical ambiance, this area afforded the possibility of surplus food production for offsetting risk and disaster via recession agriculture and the procurement of aquatic resources. The *islotes* required a labor investment beyond what could be met by nuclear families and were a vehicle for establishing corporate usufruct rights to highly productive resources in these wetlands. They may be conceptually linked to related notions of origins and the place of humans in the universe insofar as they take the form of a miniature hill surrounded by water, a key cosmological notion in Mesoamerica. Each *islote*, a symbol of the primeval monster and the sacred mountain emerging from the watery underworld, stood for the appropriation of cosmological principles by specific groups in order to establish exclusionary rights based on principles of ancestry and first occupation. These early architectural vestiges and associated cosmological concepts may be implicated in nascent sociopolitical asymmetry via the formation of corporate descent groups with hereditary rights in the wetlands, the establishment of exclusive and inherited rights to property and resources based on ancestry, and the appropriation of a cosmological charter, a process that set the stage for later apogee phase political development (Cyphers and Zurita 2012).

The study of the potential role of conflict in the initial Early Preclassic is laden with problems such as the heavy overburden that obscures these occupations and makes excavation extremely difficult and alluvial sedimentation that affects site visibility in regional survey. As well, limited regional survey coverage hinders fuller attempts to understand the early landscape, which likely has more settlement differentiation than is actually perceived, as is illustrated by the site of El Manatí. Despite the generally low population densities, inter-village conflict seems likely, and San Lorenzo may have had clashes with smaller villages located on the Island and nearby promontories.

Proposals involving the Early Preclassic fluvial and terrestrial movement of goods within the heartland are those mentioned by Stark (2000) and Symonds et al. (2002), in which responses to subsistence risk, environmental problems, and the provisioning of an environmentally circumscribed, growing population made central leadership necessary for arbitrating land disputes, amassing and distributing foodstuffs, and providing basic services in times of need. Although Stark points out that the lack of periodicity of environmental problems and risks may work against this association (2000:39), paleoclimate studies (Haug et al. 2001) suggest that increasing tendencies toward climatic extremes make this a viable scenario.

In the San Lorenzo-A and B phases, political development involved different strategies across the heartland. The greatest degree of centralization was found on the San Lorenzo Island and immediate environs and was driven by multiple factors such as population increase, subsistence / resource competition, and rivalry in trade and for control of communication along fluvial and terrestrial pathways. By this time, the well-embedded exclusivity of the cosmological charter of royalty and nobles became an instrument of political inequality. The increasing integration of this rapidly growing population over a period of four centuries resulted in regional settlement differentiation consistent with major and minor centers, resource extraction sites, production sites, ceremonial places, transportation architecture, and fluvial and terrestrial traffic control nodes. After drawing to it a significant population early in this period, San Lorenzo then may have directed the colonization of more distant but economically important zones.

With the march of time, the forms and degree of political integration changed across the heartland but at disparate rates and via multiple experimental strategies. Some largely undifferentiated settlements of the heartland were slowly incorporated into the social and political spheres of San Lorenzo, its dependent centers, and smaller allies, while others may have maintained some autonomy while participating in heartland exchange networks. New sites were founded in strategic points to manage resource exploitation. Regional integration was fomented by diverse alliances and the inclusion of leaders of local groups in politico-religious ritual. Monumental construction at the capital was incessant during the apogee as well as the use of monumental sculpture by the rulers and nobles in public rituals. Set in the context of regional demography, the scale of stone and architectural monument building and transport undoubtedly required labor tribute and coercion. Osteological, iconographic, and settlement evidence provide tantalizing signs of warfare.

Social stratification, as evidenced by monumental sculpture themes and dwelling size, design, and position, became a way of life in the San Lorenzo Island and perhaps beyond. The production of high-status goods was directed by the rulers and nobility, who also employed the imported status trappings for their own purposes. The appearance of the institution of divine kingship between 1400 and 1000 cal BCE was extended to some subordinate centers which were ruled by nobles or potential heirs to the capital's throne. The rulers' right to office was defined by genealogy, as were other positions of leadership held by noble subordinates such that a hierarchical array of formal political offices was occupied by members of the upper class. However, kinship bonds were surpassed in that not all members of the upper class held positions and the leadership of some dependent centers and villages was given to non-kin.

San Lorenzo appears to have had an impact on the development of La Venta given the continuation of similar customs related to divine rulership, ancestor worship, origin myths, cosmological concepts, portraiture in colossal heads and bas-relief forms, sponsored craft production, social stratification, wetland subsistence strategies, shamanism, and so on. The persistence of these customs must be related to two principal factors: Early Preclassic contacts between the two sites, and local migration from San Lorenzo to La Venta beginning at the end of the former's apogee.

In conclusion, the present review has attempted to define principal features and forces of change in Olmec society throughout the initial and Early Preclassic and contribute evidence pertinent to the conference theme. Emphasis has been placed on the data that are relevant to understanding the dynamic nature of cultural development in the heartland rather than on typological categories and speculation based on theoretical expectations. Be that as it may, the Olmec case has and probably always will be controversial, as was indicated by Barbara Price nearly four decades ago: "the most striking characteristic of the entire Olmec phenomenon would seem to be its almost unparalleled power to excite controversy" (1970:393). It is this controversy that makes Olmec archaeology a challenging and exciting field of study.

ACKNOWLEDGMENTS

I would like to thank Dave Grove, Ken Hirth, Marci Lane Rodríguez, Bob Sharer, Saburo Sugiyama, and Tim Murtha for helpful remarks and information, Marisol Varela for editorial assistance, and Kent Reilly for the gift of a very special book. This paper was submitted in November 2007.

NOTES

4.1. This scenario for the development of Isthmian cultures bears a noteworthy similarity to some interpretations of Mormon sacred history and geography. The Book of Mormon is considered by some to be a reliable historic testimony, although this position finds considerable opposition outside the Church of Latter Day Saints (e.g., Coe 1973a; Green 1969; Brodie 1992). Just as in Biblical studies, the Mormons have spent considerable effort in identifying the places mentioned in their sacred scripture, and some studies correlate them to Mesoamerican archaeological sites and cultures (e.g., Sorenson 2000; Clark 2005a). Without delving into Mormon debates about specifics, suffice it to say that the concern with a specific geographical location, the "narrow neck of land" mentioned in the Book of Mormon, has motivated intense sponsorship of archaeological work in and near the Isthmus of Tehuantepec. Simply put, early

Mormon groups (lost tribes) were thought to have colonized the southern portion of the narrow neck of land and then moved across it to create a great civilization which then returned to exert influence on the southern portion of the narrow neck of land.

4.2. Due to the large size of the Group E precinct, excavations and coring have not been able to define the exact shape of the platforms. It is as yet unknown if they were freestanding or joined, as represented in Figure 4.6.

4.3. The volume of the Pyramid of the Sun is based on Millon (1960), and Timothy Murtha kindly provided the volume of Temple 1 at Tikal.

4.4. Some methodologies involve sherd densities and the size of architecture borrowed from highland areas (e.g., Santley et al. 1997:177), while others attempt to appraise site types on a regional basis (e.g., von Nagy 1997; Symonds et al. 2002) and estimate populations from house densities as interpreted from visible surface remains (e.g., von Nagy 1997) or from house excavations (e.g., Symonds et al. 2002). Correspondingly, the methods used in generating population estimates are quite variable, generally varying from high (Santley et al. 1997) to low (Symonds et al. 2002). Another problem is the use of contrasting chronologies, a situation partly related to the generally low frequency of surface diagnostics.

4.5. By definition, *islotes* are low platforms constructed only in the wetlands that served to elevate the structures built atop them from rising floodwaters. They were not built as surfaces for planting, nor do they form clusters that could be compared to mound-and-plaza architecture, although one set of four *islotes* seems to form a group. Excavations by the San Lorenzo Tenochtitlán Archaeological Project in numerous *islotes* discovered occupational surfaces and structural elements as well as typical rectangular hearths that may have been used for smoking foodstuffs procured via aquatic subsistence strategies and recession agriculture conducted in areas with the least vegetation cover such as the low floodplain (Symonds et al. 2002).

4.6. Proposals of a temporal/power hiatus between the apogees of San Lorenzo and La Venta (e.g., Clark and Pye 2000b; Lowe 1989b; von Nagy 2003) are at present speculative.

4.7. *Castilla elastic* Cerv. is reported from the upper Miocene Coatzacoalcos Paraje Sola Formation, corresponding to the *Selva Alta Subperrenifolia* (Graham 1976:797). Even as late as the early 20th century, capes were dipped in rubber in the Oteapan, Veracruz, area, just as reported for the 16th century (Whaley 1946:21). In addition to its use for making balls, rubber was also a medicine and aphrodisiac in prehispanic times (Elferink 2000:28).

4.8. Pierre Agrinier suggests there are ilmenite sources in central Chiapas (1984:75–76) that were exploited for making these blocks; however, geologists have not found evidence there for a pre-Cambrian formation appropriate for such deposits (F. Ortega, pers. comm.). Apparently the nearest such terrain is located in neighboring Oaxaca (see Schulze et al. 2004; Solari et al. 2004).

4.9. Clark (1996:193) and Pool (2007:105) presume that the ilmenite blocks arrived in San Lorenzo already in drilled form,which is possible but not demonstrable on the basis of current data.

4.10. Pool misrepresents this landmark study in agronomy, alleging that the authors did not take into account the fallow cycle (2006a:202); however, cultivated land that is allowed to lie idle during the growing season, which is called *barbecho* in Spanish, is without a doubt taken into consideration (see Rodríguez et al. 1997: 55–56, 63). They show that levee productivity over the long haul cannot be considered constant due to its dependence on variable and unpredictable climate and flood patterns.

5

Western Kingdoms of the Middle Preclassic

JOHN E. CLARK

The Middle Preclassic was the critical era in the development of Mesoamerican civilizations. The period began about 1000 BCE with the collapse of San Lorenzo and ended with the abandonment of its successor city, La Venta, about 400 BCE (dates are calibrated). Just a century later there were kingdoms and states in most regions of Mesoamerica, including the Maya lowlands and highlands. Olmec kings ruled at San Lorenzo for about three centuries and at La Venta for about five. It is still not known how either kingdom came into being or why either ceased. Nonetheless, two conjectures appear warranted. First, many institutions and accouterments of power evident at San Lorenzo and La Venta show up in later regional polities, especially those in the Maya lowlands, so some historic connection is indicated. Second, La Venta appears to have been the principal historic bridge between the earliest Olmec kingdom at San Lorenzo and the numerous Mesoamerican kingdoms of the Late Preclassic period. Data are currently insufficient to evaluate fully or to establish beyond reasonable doubt either conjecture. In this chapter I attempt to fill the gap between the fall of the Early Preclassic polity at San Lorenzo and the rise of Late Preclassic states.

The analytic objective of this book is the origin of early Maya states during the Preclassic period, so it is appropriate to view developments on the western edge of the Maya world from this point of view without prejudging matters of ancient foreign policy and relations, or their possible effects on different peoples. Much of the controversy in the literature concerning Olmec-Maya relations in Preclassic times might have been avoided if these ethnonyms had been taken to represent specific kingdoms or regional polities rather than monolithic entities for macro-language groups. By Middle Preclassic times Olmecs populated many different polities, as did the lowland Maya and other peoples of Mesoamerica, so it makes no analytic sense to extol the actions of Olmecs or Mayas in collective aggregate. Decision-making, actions, and their consequences did not occur at the global level of all peoples but at regional and local levels of polities directed by kings or councils. Each polity had its own history. To work out the connections between polities and their causal effects on each other, one must reconstruct histories of contact, the nature of the contact, and the responsible agents involved. This chapter is meant as a step towards historic specificity and concreteness.

The units of analysis I rely on to address the evolution of political complexity during the Middle Preclassic are *kingdoms*, meaning regional polities based on social stratification and directed by kings, regents, or royal councils. "Kingdom" is a more ample and generous category than "state" and includes complex chiefdoms as well as states (Clark 1997). This category allows one to investigate the origins of states *sans* the analytical trauma of having to decide beforehand the precise status of all polities involved. Space limitations preclude discussion here of all Mesoamerican kingdoms outside the Maya region. I describe the most proximate for which some useful information is available (see Fig. 5.1), beginning with La Venta and then moving south along the western edge of the Maya world and then farther west to Tres Zapotes and Laguna Zope. These were political and social entities probably created and managed by speakers of Mixe-Zoque and Otomanguean languages (Campbell and Kaufman 1976; Hopkins 1984; Lowe 1977, 1998a; Lowe et al. 1982; Warren 1978; Winter 1989, 2004). In the final section I consider briefly the general pattern of the histories of these occidental polities. The societies represented all became kingdoms during the Middle Preclassic. The regional chronologies involved and their correspondences as I understand and describe them are shown in Figure 5.2.

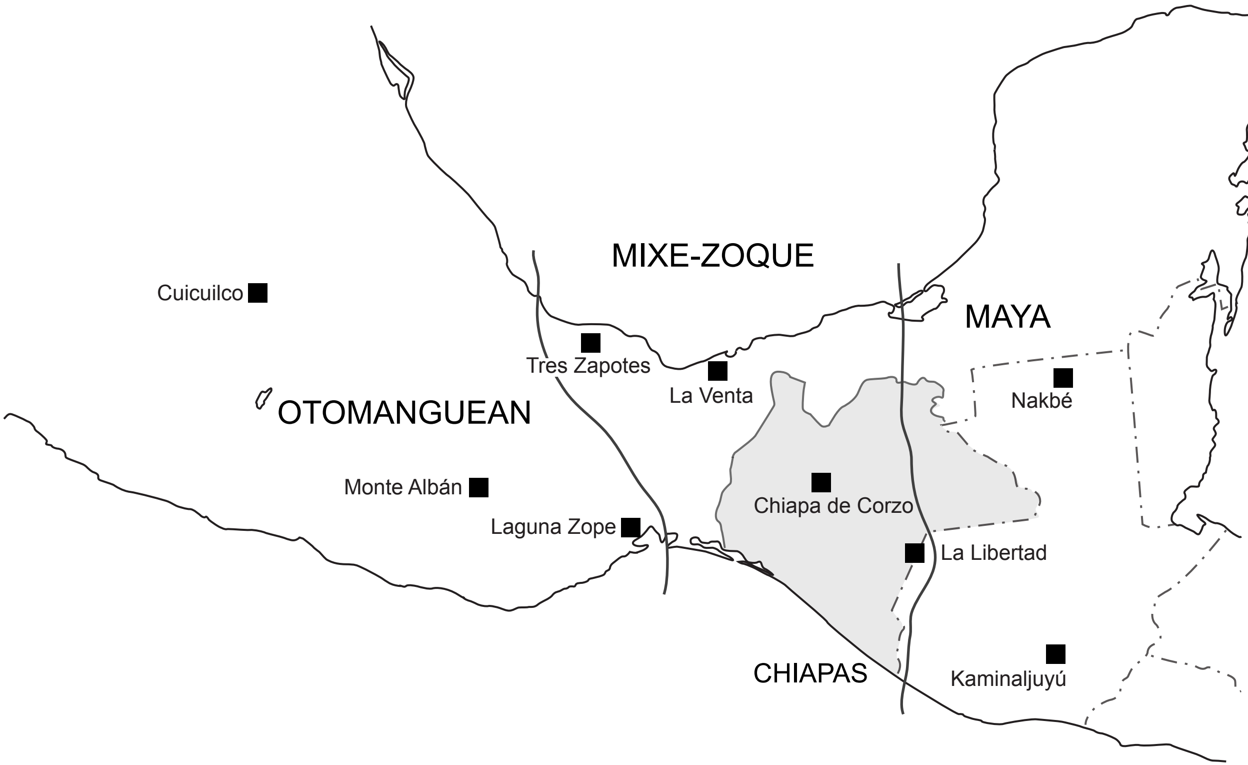
LA VENTA, TABASCO

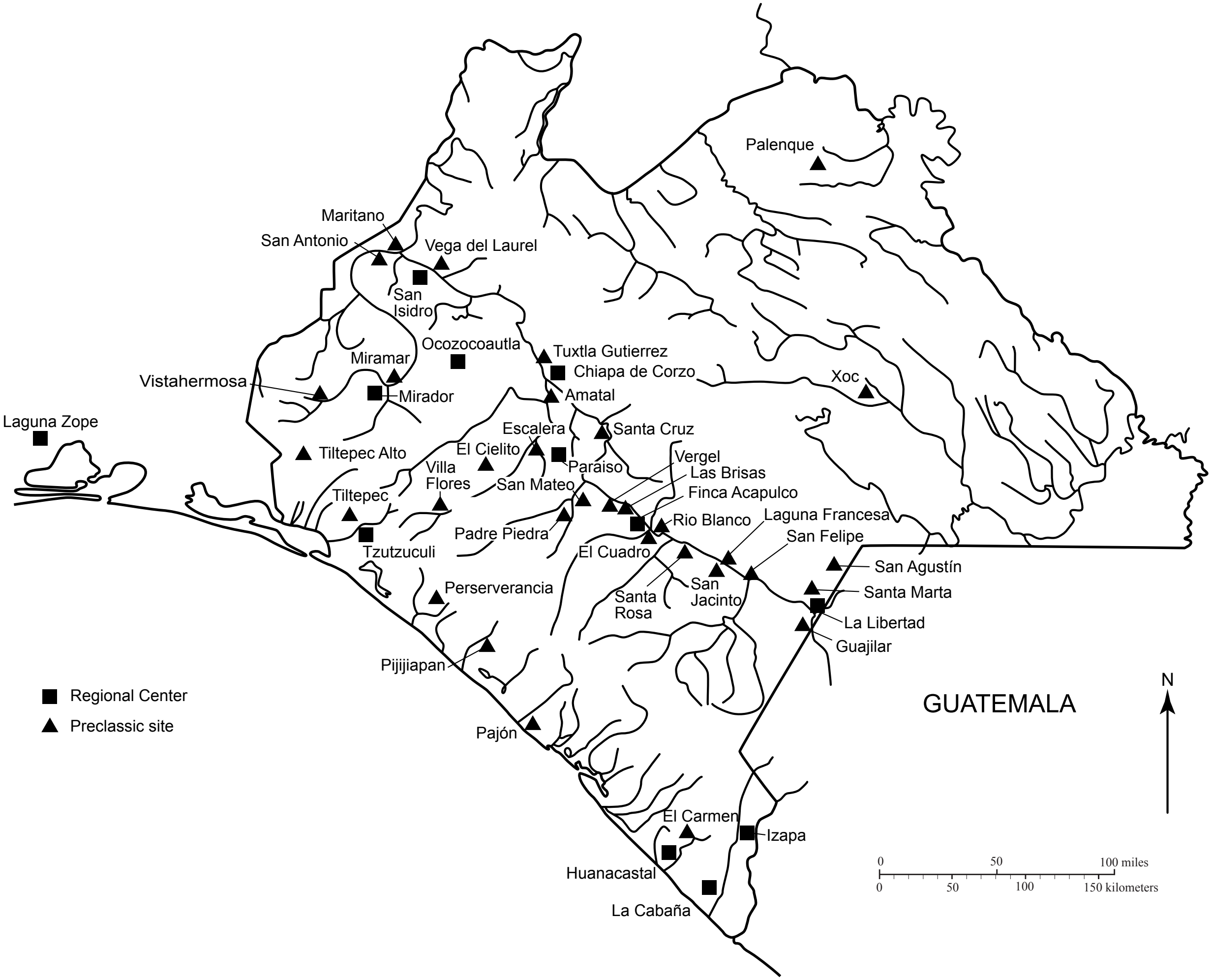
La Venta is the best known Olmec city in Mesoamerica. By "city" I simply mean a semi-urban center of at least 4,000–5,000 people (see Flannery 1994). Most information for La Venta comes from excavations carried out in the 1940s and 1950s of its northern sector (Drucker 1952; Drucker et al. 1959). Early speculations on Olmec-Maya relations were based on evidence from La Venta and understandable misconceptions of its antiquity and form. The archaeological indicators that La Venta was the seat of an ancient kingdom include the size of the site, the arrangement of its plazas and large earthen platforms, the number, size, and themes of its stone monuments, the size and contents of buried offerings, evidence of elite burials, and its central place in a regional settlement system (Drucker 1981). Although earlier peoples lived in the area, the city of La Venta was founded about 900–850 BCE and lasted until about 400 BCE; this interval represents its history as one of Mesoamerica's preeminent kingdoms. Issues of continuing controversy are the construction date of La Venta's buildings and sculptures, the origins of its planned space and its significance for rulership and power, the type of government practiced there, and the influence on neighbors or received from them (see Gillespie 2008, 2011). General summaries of La Venta are readily available (Diehl 2004; Pool 2007), so I focus on controversial points germane to the larger issues of Middle Preclassic kingdoms and Maya states.

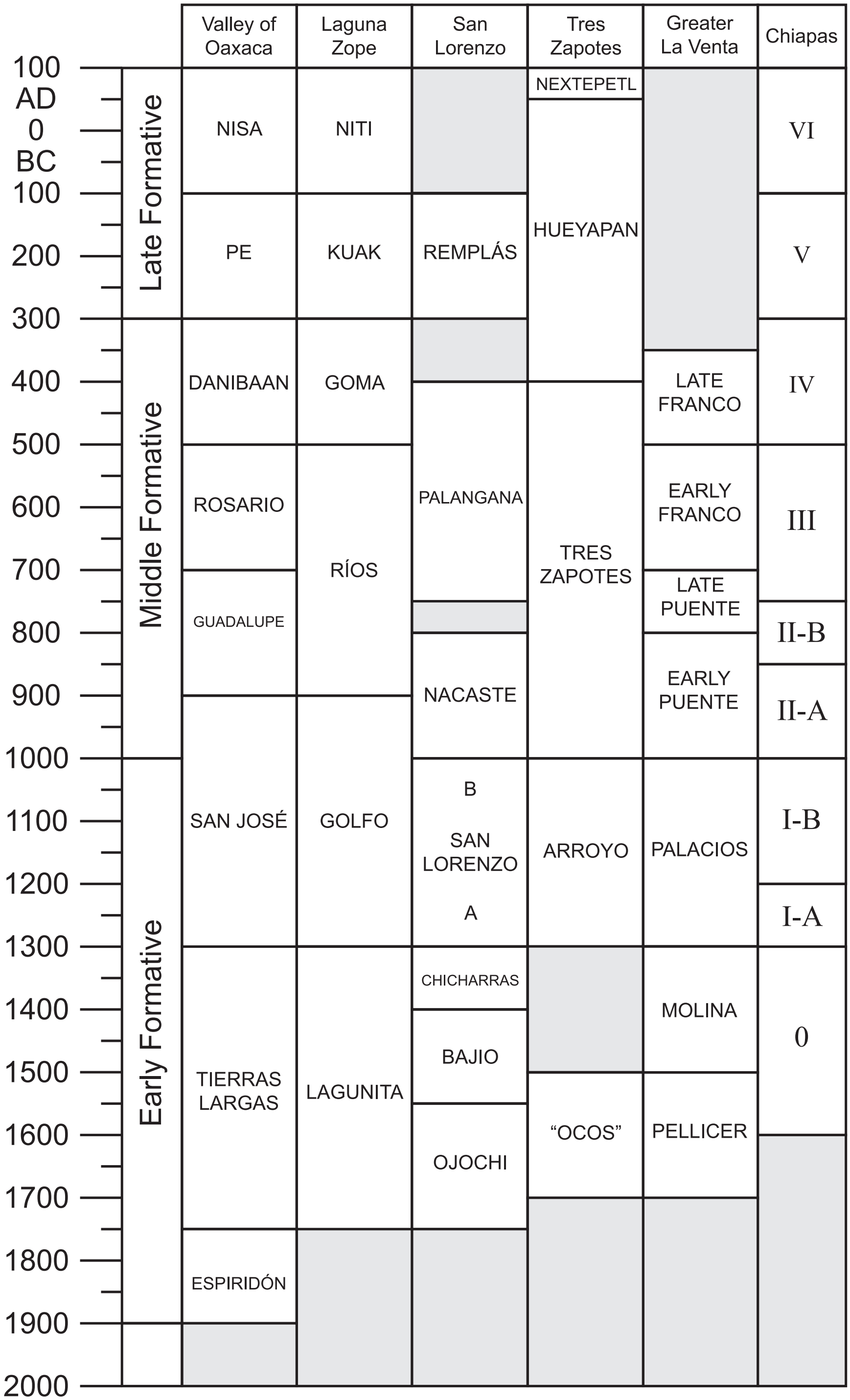
Site and Kingdom History

Although earlier peoples lived in the immediate zone as early as 1750 BCE and probably earlier (González Lauck 1996, 2001; Pope et al. 2001; Rust 1992; Rust and Leyden 1994; Rabb et al. 2000; Rust and Sharer 1988; see Pool 2007:127, 305 for best summary), the architectural core of the city of La Venta appears to have been built from scratch about 900 BCE on an elongated, 20 m high island in a vast swamp in western Tabasco, just 15 km south of the Gulf coastline. The map of the site presented in Figure 5.3 indicates the conjectured starting and final forms of this city. The basis of my conjectures are comparisons with Chiapas sites rather than excavation data from La Venta. Little is clear about La Venta's construction history, for a host of lamentable reasons, and the intensively excavated northern sector (Complex A) is a mess to straighten out (see Gillespie 2008). My model for La Venta's history reads planning and organization from the site's precisely partitioned space (Clark 2001; Clark and Hansen 2001). Susan Gillespie (2008, 2011) argues that the construction history of Complex A, the best known part of the site, should not be read in this way and that the site's bilateral symmetry developed through time rather than being present at the site's founding, as I argue. Her evidence undercuts her own ar-

5.1. General map showing Middle Preclassic sites in Chiapas and Mesoamerica, with lines delimiting possible linguistic territories.




Palenque
Maritano
San Antonio
Vega del Laurel
San Isidro
Ocozocoautla
Tuxtla Gutierrez
Chiapa de Corzo
Xoc
Miramar
Vistahermosa
Mirador
Amatal
Laguna Zope
Escalera
Santa Cruz
Tiltepec Alto
El Cielito
Paraiso
Vergel
Villa Flores
Las Brisas
San Mateo
Finca Acapulco
Tiltepec
Rio Blanco
Laguna Francesa
Padre Piedra
San Felipe
Tzutzuculi
El Cuadro
San Agustín
Perserverancia
San Jacinto
Santa Rosa
Santa Marta
La Libertad
Guajilar
Pijijiapan
Regional Center
Preclassic site
GUATEMALA
N
Pajón
El Carmen
Izapa
Huanacastal
La Cabaña
0
50
100 miles
0
50
100
150 kilometers



5.2. Comparative chronology of the Middle Preclassic. (Sources for regional chronologies discussed in the text.)

<table>
<tr><th></th><th>Tzutzuculi</th><th>San Isidro</th><th>Chiapa de Corzo</th><th>La Libertad</th><th>Izapa</th><th>Kaminalijuyu</th><th>Maya Lowlands</th></tr>
<tr><td rowspan="3">Late Formative</td><td rowspan="4"></td><td>IPSAN</td><td rowspan="2">HORCONES</td><td rowspan="2">HUN</td><td rowspan="2">HATO</td><td rowspan="4">ARENAL</td><td rowspan="3">CHICANEL</td></tr>
<tr><td rowspan="2">GUAÑOMA</td></tr>
<tr><td>GUANACASTE</td><td>GUAJIL</td><td>GUILLÉN</td></tr>
<tr><td rowspan="7">Middle Formative</td><td rowspan="2">FELISA</td><td rowspan="2">FRANCESCA</td><td rowspan="2">FOKO</td><td rowspan="2">FRONTERA</td><td rowspan="2">LATE MAMOM</td></tr>
<tr><td>TUSANTECO</td><td rowspan="2">PROVIDENCIA</td></tr>
<tr><td rowspan="2">ARISTA</td><td rowspan="2">EQUIPAC</td><td rowspan="2">ESCALERA</td><td rowspan="2">ENUB</td><td rowspan="2">ESCALÓN</td><td rowspan="3">EARLY MAMOM</td></tr>
<tr><td rowspan="3">LAS CHARCAS</td></tr>
<tr><td rowspan="3">LATE
TRES PICOS
EARLY</td><td>DZEWA</td><td>DZEMBA</td><td>DYOSAN</td><td>DUENDE</td></tr>
<tr><td rowspan="2">DOMBI</td><td rowspan="2">DILI</td><td rowspan="2">CHACTE</td><td rowspan="2">CONCHAS</td><td rowspan="2">EB</td></tr>
<tr><td rowspan="2">AREVALO</td></tr>
<tr><td rowspan="9">Early Formative</td><td rowspan="3">ZANATENCO</td><td></td><td rowspan="2">JOBO</td><td rowspan="2">JOCOTE</td><td rowspan="2">JOCOTAL</td><td rowspan="10"></td></tr>
<tr><td rowspan="3">CACAHUANÓ</td><td rowspan="9"></td></tr>
<tr><td rowspan="2">COTORRA</td><td rowspan="2">CHACAJ</td><td rowspan="2">CUADROS</td></tr>
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<tr><td rowspan="2">LATO</td><td rowspan="2">LOCONA</td></tr>
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<tr><td rowspan="2"></td><td>BARRA</td></tr>
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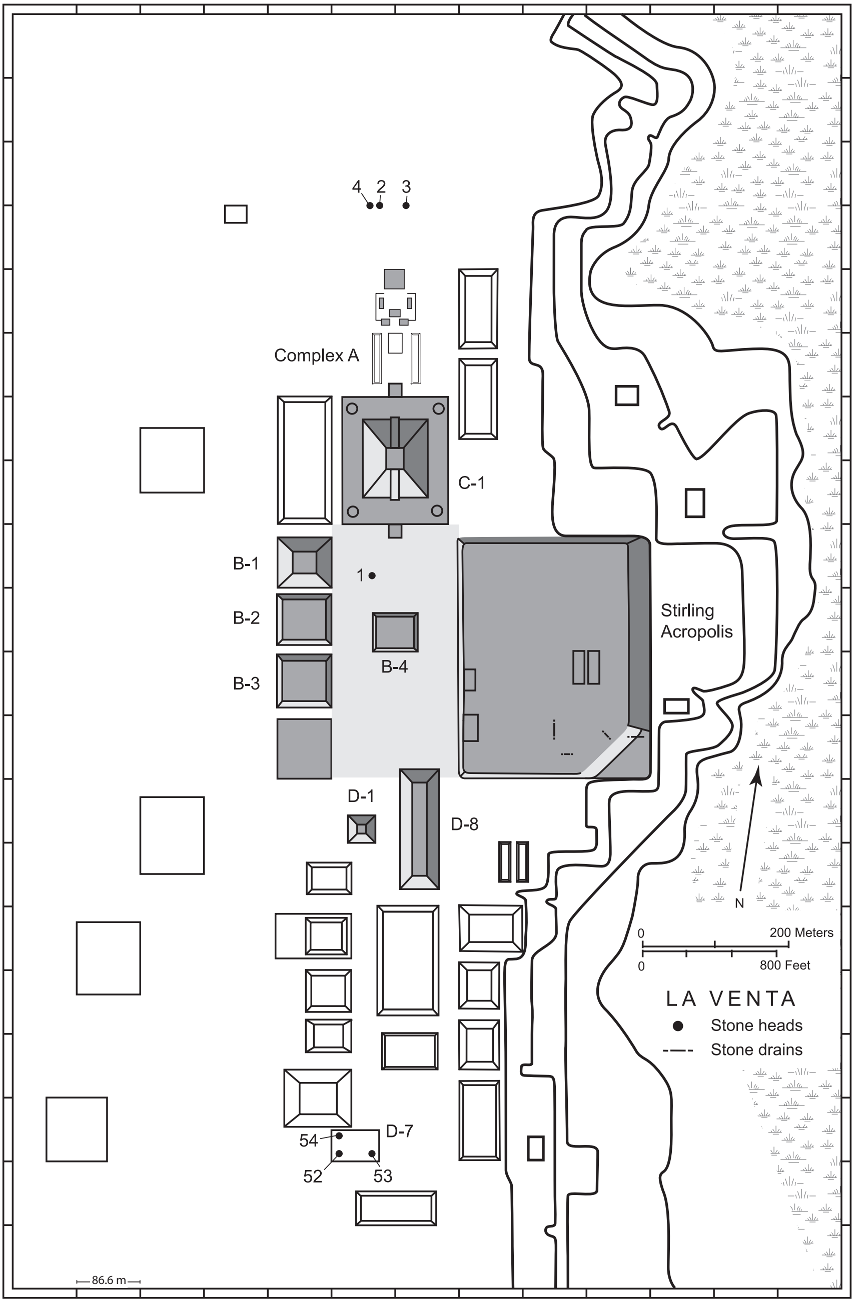
gument, and her interpretation of site structure exhibits the *pars pro toto* problem she tries to correct. Like the hosts she criticizes, Gillespie lets the construction history of Complex A stand in for that of the whole site. My arguments ignore Complex A and focus instead on the main body of the site and its aboveground monumental architecture. My model is based on conjectured parallel histories with Middle Preclassic Chiapas capital centers. In this model, La Venta at its founding was staked out along the eastern edge of the island. This north-south tending eastern escarpment was cut and terraced to bring it into alignment with the principal site axis of this cross-shaped city (Clark 2008). The dominant construction was a 32 m tall clay pyramid (Mound C-1) built on a large platform at the northern edge of a long, central plaza. The pyramid was counterbalanced in the northern sector with several large offerings (buried mounds of serpentine) placed in pits over 7 m deep (Drucker et al. 1959:97).

La Venta was constructed along a centerline oriented 8 degrees west of north (Drucker et al. 1959: fig. 4). My hypothesis is that the original city center was segmented into intervals 86.6 m in length, or simple fractions and multiples of this length. La Venta was 10 of these intervals long and 8 wide (Clark 2001, 2008). Subsequent platform additions to the city center respected the original orientation and measurement interval. Later mounds encroached on early mounds in the north. The city center eventually extended 1,482 m north-south. Towards the end of La Venta's history, large stone monuments were set up as boundary markers. Three colossal basalt heads were placed at the northern edge of the city, and they faced the sea to the north. Three even larger sandstone heads were placed near the southern end; two faced south and one faced north (González Lauck 1995:39; 1996: fig. 1; 2004: fig. 1; Grove 1999: fig. 6; Stirling 1968). These northern and southern lines of monuments were 1,300 m apart (Fig. 5.3).

La Venta appears to have been partitioned and arranged according to function. The original layout shows a 346 m long, 6 ha plaza with special architecture flanking it in each cardinal direction. This plaza was probably for public ceremonies and for viewing rituals performed on the platforms surrounding it. The plaza could have accommodated comfortably well over 100,000 standing spectators but may never have been that crowded. Looking north, a spectator during the city's heyday would have seen the 32 m high, stepped pyramid made of about 90,000 cubic meters of dirt and clay (Heizer 1968:17). A temple of perishable materials probably graced



5.3. Map of La Venta, Tabasco, Mexico. The gray areas indicate the hypothesized earlier complex of the city. Contour data and monument locations were taken from González Lauck (1988:fig.1, 1996:fig.1).

the summit of this artificial mountain. The temple could be accessed from stairs on the south and north faces and maybe on the other two sides as well (González Lauck 1997, 2006). The pyramid is the only promontory of this size for over 100 km on this coastal plain and can be seen from 10 km away. It would have been very impressive close up in its final form. The pyramid was given a new clay skin several times during the city's history, each time making it bigger and taller. The final clay cap dates to before 400 BCE (González Lauck 1996:75; 1997:93). The height of the original pyramid and its construction history have not been determined.

East of the plaza lies a broad 8 ha low platform (Stirling Acropolis) that required nearly twice as much earth and clay to build as the main pyramid. This platform probably supported the residence of the king, his courtiers, and servants (Clark and Hansen 2001; Reilly 1990). A small ballcourt and an elaborate system of subterranean stone drains have been identified there (Heizer et al. 1968). The eastern edge of the platform shows evidence of deliberate sculpting and terracing (Fig. 5.3), cultural practices known for the earlier Olmecs at San Lorenzo (Clark 2007b; Coe and Diehl 1980; Cyphers 1997a-c). The evidence suggests that many buildings rested atop this acropolis (Clark and Hansen 2001:5) and were occupied for the full duration of the site, 900–400 BCE (Heizer et al. 1968:152).

Just south of the main plaza lies a long mound (D-8) flanked on the west by a short pyramid (Mound D-1). Such building pairs are known in the Maya region as E-Groups because they were first identified at Uaxactun in Group E (Ricketson 1937). Together, the centered pyramid and the long eastern mound may have constituted an observatory for monitoring the movements of the rising sun throughout the year, perhaps to coordinate the agricultural cycle and rituals (Lowe 1989b). To the west of the main plaza at La Venta was a row of low platforms (Mounds B-1, B-2, and B-3), probably special residences or temples. Axial asymmetry is evident in the placement of platforms. Buildings around the plaza were complementary sets: the central pyramid and observatory formed a N-S pair, and the eastern acropolis and western platforms an E-W pair.

Complex A, north of the tallest pyramid, was built at 1/4 the scale of the original plaza arrangement (Clark 2001; Drucker et al. 1959). The northern half of Complex A included five low mounds surrounded by a 2 m high rectangular palisade of upright, natural basalt pillars. This compound arrangement appears to have been a novel architectural feature first seen at La Venta. The small court at Teopantecuanitlan (Martínez 1986, 1994, 2010) may have been patterned after the court at La Venta, and Group E at Uaxactun probably was in some way. The compound at Uaxactun is a scale model of the court in Complex A at La Venta. Spectacular jade and serpentine offerings, and royal tombs, were found in La Venta's Complex A court, along the principal axis and in mirror symmetry on both sides of it. At least one of these offerings had more than 1000 tons of serpentine (Drucker et al. 1959:97). Its little-explored companion offering probably had as much (Wedel 1952: fig. 20; see Clark and Colman 2012). Another addition was the importation of tons of basalt for stone monuments and architectural enhancements. These were brought in from over 100 km away (Williams and Heizer 1965:17; Pool 2007:148), probably on canoes or rafts.

To date, 73 carved stone monuments and over 200 one-ton columnar basalt pillars have been discovered in the city (González Lauck 2004, 2010b). Sculptures include colossal stone heads, tabletop thrones, full-figure images of seated kings, and low-relief carvings on stelae. At the base of the south side of the great pyramid stood 7 stelae facing the main plaza and flanking the staircase. Of the stelae on each side, 2 were representations of supernaturals (González Lauck 1996:76; 1997), perhaps anticipating a later Maya practice of modeled-stucco supernatural masks flanking the stairs of pyramids, or copying earlier Maya practices, first evident at El Cival (see Francisco Estrada-Belli, Chapter 6, this volume). The paired stelae on each side of the stairs were matched sets (the width of the stairs is hypothesized here), as evident in the diagonal markings of their ropes in the lower register of each axe-shaped monument of a supernatural.

With the exception of the six colossal stone heads used as boundary markers, stone sculptures were confined to the northern part of the city, the domain of La Venta's lords and priests. The oldest platforms in the north were rebuilt or refurbished many times during their four to five centuries of use (Drucker et al. 1959; Gillespie 2008). I think platforms were added to the southern end of La Venta after the initial construction of the northern buildings because the southern platforms are not as logically arranged as those of the early city, and they have no counterparts in coeval centers in Chiapas (see below). The southern part of La Venta dates to at least 500 BCE. Presumably, these southernmost platforms were for privileged personnel and state functionaries—a class of people that probably increased through time.

Some features of La Venta's layout appear to have been copied from San Lorenzo and modified (Cyphers, Chapter 4, this volume), other features were borrowed from other societies, and still others were instigated at La Venta (Clark 2008). These features came together in a pyramid city that established a new architectural ideal in Mesoamerica (see Clark and Colman 2012; Clark and Hansen 2001:3). The most obvious prototype for La Venta's main pyramid was built at least a century earlier at La Blanca on the south coast of Guatemala (Love 1991, 1993, 2002c, Chapter 7, this volume). I suspect that the idea of the La Venta plaza came from San Lorenzo, but the earliest plaza currently known was constructed at Paso de la Amada in the Mazatan region of the Soconusco about 1650 BCE. It was about half the size of the plaza at La Venta and of different orientation (Clark 2004a: fig. 2.6). The earliest known ballcourt is also from Paso de la Amada and is slightly earlier than its plaza (Hill et al. 1998; Hill and Clark 2001). The oldest securely dated E-Group of which I am aware is at Chiapa de Corzo. It dates to the Chiapa II-A phase (1000–850 BCE); the E-Group at Tzutzuculi dates to Chiapa II-B times (850–750 BCE). I think E-Groups were a local invention at La Venta about 900–800 BCE and that the idea spread from La Venta to contemporaneous centers in Chiapas and even later to centers in the Maya lowlands (Clark and Hansen 2001; see Estrada-Belli, Chapter 6, this volume, for a counter opinion). Because most buildings at La Venta have not yet been dated with radiocarbon or with associated ceramics, my argument remains inferential and unsubstantiated.

In its final form the central and monumental part of La Venta was about 58 ha in extent. With its residential neighborhoods, the city covered at least 200 ha (González Lauck 1996:75; 2001) and could have accommodated several thousand people, thus my preference for the term "city" instead of "town" or "village." Many more people lived on small islands and river levees within 10 km of the city (Pohl et al. 2002; Rust and Leyden 1994). The size of La Venta, the number of its stone sculptures and their royal themes, the number, size, and contents of its special offerings, and the presence of burials of high-status individuals demonstrate it was a special place and a regional polity or capital (Drucker 1952, 1981; Drucker et al. 1959). The extent of the La Venta polity has not been determined and remains a matter of speculation. A survey around the site by William Rust (Rust 1987, 1988; Rust and Leyden 1994) shows that the La Venta settlement hierarchy may have extended 40 km from the city center. It may have been greater than this. Christopher Pool (2007:154) argues that La Venta's control did not extend to the rival center of Tres Zapotes (see below) but likely included the famous sites of Arroyo Pesquero, 20 km south of La Venta, and Arroyo Sonso, 35 km to the southwest. Antonio Plaza, located a few kilometers farther west from this last site may have been another secondary center; the famous "wrestler" statue is from there (Cyphers and López Cisneros 2007). If Antonio Plaza was a secondary center, then the effective boundaries of the La Venta polity would have extended beyond the 40 km radius mentioned, at least in that direction. Final assessments of La Venta's influence depend on reconstructions of its foreign relations and historic connections to its predecessor at San Lorenzo.

It is presumed that La Venta was ruled by kings (for summaries, Clark 1997, 2004b), but the evidence comes from representations on stone monuments. No one has yet produced a body. The mortal remains of La Venta's rulers, and of all its other denizens, have not been recovered because bones and teeth do not preserve in the tropical conditions of the locale. Interpretations of royal history thus require a series of guesses about ancient burials and/or conjectures concerning the meaning of art and its chronological sequence. The preservation problem dictates that only graves with durable objects will be recovered. Thus, the bias is towards recovering the mortuary offerings of elite individuals, but this suits my current purpose. Many elite graves have been reported for La Venta, but most have been classified as "offerings" because no human remains were found in association with the jade jewelry and stone axes (see Drucker and Heizer 1965:56–58; *contra* W. Coe and Stuckenrath 1965). At least 10 graves are known for the site and they span its history (Colman 2010). All but one are from Complex A, north of the pyramid.

Burials are ordered by construction phases of Complex A (Drucker et al. 1959; the following summary based on Colman 2010). Only one burial each is known for Phase I (Offering No. 7: Drucker et al. 1959:171–74; Drucker and Heizer 1965:59) and for Phase II (Offering No. 3: Drucker et al. 1959:146–52). Two burials have been assigned to Phase III (Offerings No. 5 and 6: Drucker et al. 1959:162–71) and seven to Phase IV (Offerings 1940A, 1942A, 1942B, 1942D, 1943F, 1943G, and 1943L: Drucker 1952; Drucker et al. 1959:272–74). These "offerings" were elite burials, most of them primary but some secondary. Jade jewelry, figurines, and axes were the mortuary offerings of choice from the very beginning. Pots are rare in these graves, so these burials have been dated by gross architectural association rather than through pottery styles. It is not certain that any of these burials were of kings, but they were certainly of persons of privilege. The most common elements were jade earspools, necklaces, bracelets, and sometimes a jade bead belt and simple headdress with a jade maskette with other jade spangles, all indicating use as mortuary offerings that accompanied elite burials for which no osteological remains have survived (see Clark and Colman 2013). The few clues available indicate that children as well as adults were buried with these symbols of high status (Drucker 1952:23–26; Stirling and Stirling 1942:640–43). Bodies were positioned to the cardinal directions (as determined by the disposition of head and body ornaments), with no preference apparent for a particular direction in the small burial sample. Most burial facilities were simple graves, but three special tombs are known. These tombs (Offerings 1942A, 1952B, 1943G) were all on La Venta's central axis in Complex A, and they all date to the last construction phase (Drucker 1952; Drucker et al. 1959; Gillespie 2011; Stirling 1943a, b; Stirling and Stirling 1942). Another interesting feature is that the primary burials in these tombs were all accompanied by jade bloodletters; no bloodletters were found in the other elite graves. Bloodletters may thus have been symbols of royal status (Drucker 1952: Plate 53; Stirling 1943a; Stirling and Stirling 1942:640–43). Among the elite burials excavated at Chiapa de Corzo in 2010 were a male-female pair; a stingray spine was found with the woman but not the man (Bachand and Lowe 2011).

The famous basalt pillar tomb had two bundle burials of children (Offering 1942A), as well as numerous offerings (Drucker 1952:23–26; Stirling 1943b; Stirling and Stirling 1942), including two jade bloodletters and six stingray spines. The burial bundles are evidence of elaborate mortuary treatments for some individuals and curation of some human remains for later burial. The sandstone sarcophagus, Monument 6, just to the south of the pillar tomb contained a primary burial, perhaps of a king (Offering 1942B), with his head oriented to the south as indicated by the positions of the jade jewelry and bloodletter (Drucker 1952:26–27, 178; figs. 9, 58, 60, Plate 2; Stirling 1943a, b; Stirling and Stirling 1942). Both the basalt pillar tomb and stone sarcophagus were placed on top of a low platform (Mound A-2), and another construction layer was added to the mound to cover both tombs. In contrast, the burial in between these tombs (Offering 1942F) was intruded into the earlier mound and then covered with a roof of basalt pillars (Drucker 1952:27, 64, 161, 165, 167; Stirling 1943a: Plate 1). The bodies interred in these burial chambers were covered with thick layers of cinnabar.

The novelty of the basalt tomb has detracted from a far more spectacular tomb (the best candidate for a ruler) in Mound A-3. The so-called cist tomb or "Tomb C" (Offering 1943G) was much larger than the rest and perpendicular to the site's axis, but straddling the axis perfectly. This tomb measured 5.2 m from east to west and 1.8 m from north to south (Wedel 1952:68). Mound A-3 was built over this tomb. First an elaborate floor of carefully shaped and fitted flagstones was created, and stone slabs and wooden planks (my conjecture) were set upright around this pavement to create the crypt. Five large stone slabs were also used for the roof (Drucker 1952: figs. 21, 22, Plates 14 and 52). This crypt "was completely surrounded, underlain, and covered by the massive red clay and clay rubble of which the mound core had been constructed. Directly over the cist, the upper surface of the red clay reached its highest point, suggesting that when the tumulus was raised, its primary purpose was to cover this boxlike structure" (Drucker 1952:67–68). The arrangement of jade jewelry in this tomb indicates a primary individual with his or her head to the east. This person was buried with jade earspools, ear pendants, a hairpiece with a jade tube, clothing with approximately 110 small jade spangles or beads sewn on, a belt or girdle of fancy jade beads, a serpentine figurine on the stomach, and a jade bloodletter and an incised obsidian core at the waist (Drucker 1952:69, fig. 22; Stirling 1943a:322). This individual also had an obsidian blade and fragment of an iron-ore mirror (Colman 2010:219). Around the edges of the crypt were 29 jade and 9 serpentine axes and 3 ceramic vessels.

> Scattered through the heavy masses of cinnabar surrounding these objects were scores of tiny jade beads, pendants, spangles, and other objects. Many of these pieces were less than 1 cm or so long and not more than 1 or 2 cm in transverse diameter, but all had been polished and perforated for attachment to some material, presumably a textile. Several small tubular beads, 2 cm or so long, had been carved into faithful representations of duck heads. Along with these objects were several small bits of worked and bored rock crystal (Drucker 1952:70). In an irregular curving line 90 cm long and centering at the jade punch [bloodletter] was a row of 64 globular jade beads, several of them with fluted sides.

> At each end of this bead row was a small flattened elliptical jade object apparently representing a turtle carapace. (Drucker 1952:71)

There was enough space in this tomb to have accommodated four or six sacrificed attendants (indicated by the axe offerings) placed around the primary body in a manner analogous to coeval royal burials at Chiapa de Corzo and La Libertad in Chiapas (see below).

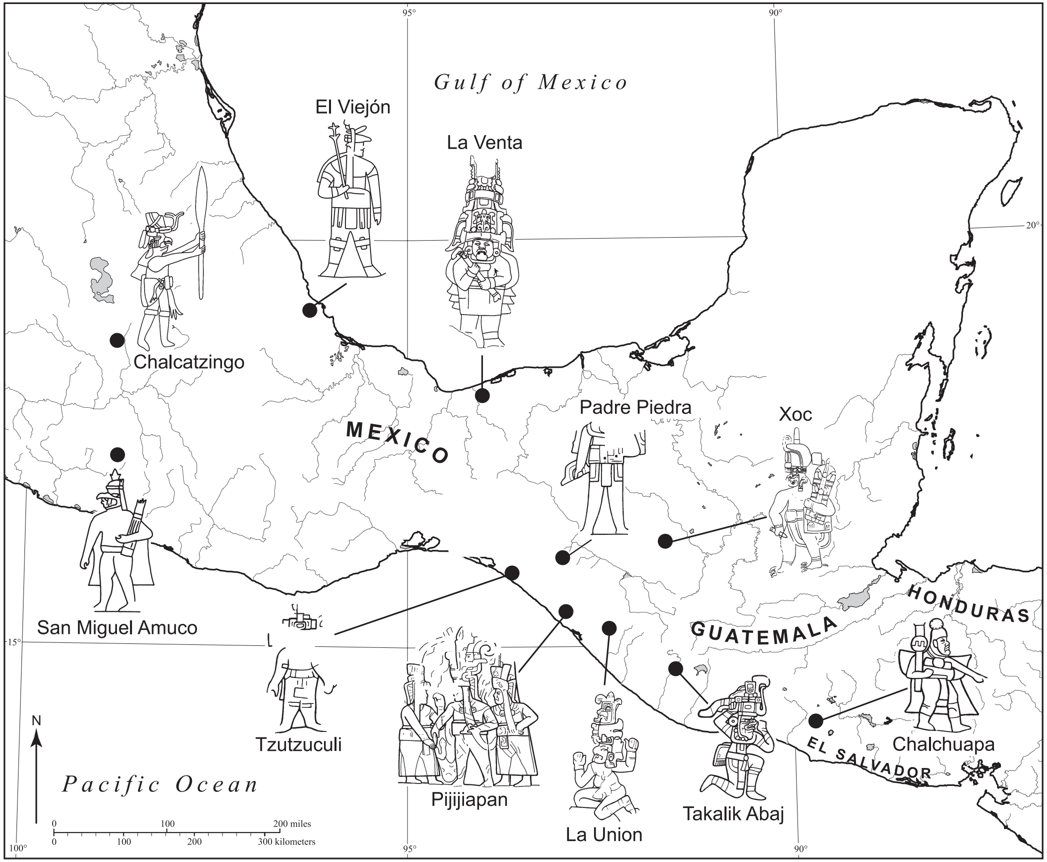
La Venta burials provide a minimal view of revered rulers for this polity. The most obvious places to recover royal tombs have not yet been excavated, so future excavations could add to the list. The perishable items of royal dress tantalizingly suggested by the distribution of small jade beads in the cist tomb are better evident in depictions of rulers and elite individuals on stone monuments (Clark and Colman 2013). Representations of rulers at La Venta differ significantly from those at the earlier city of San Lorenzo (Clark 1997, 2004b), but there are also clear continuities in the sculptural programs of these two Olmec kingdoms. Celebrated continuities include colossal stone heads, tabletop thrones, sculptures of seated figures in the round, and **U**-shaped trough stones and covers used in drain systems (Cyphers 1999, 2004a; Diehl 1981; Heizer et al. 1968; Lowe 1989b). Innovations at La Venta include massive stelae and an emphasis on low-relief depictions, including possible narrative scenes on stelae (these are rare at La Venta), and the incorporation of standing stone monuments in the monumental architecture (Clark 2004b). The evolution and precise chronology of early sculpture in Mesoamerica is up for grabs (see Clark et al. 2010; Clark and Hodgson 2008; Clark and Pye 2000a; Clark 2004b) and continues to be a point of contention for those questioning the relative merits of early Olmec and Maya civilizations. Ann Cyphers (Cyphers et al. 2006; Cyphers and Zurita-Noguera 2006a) reports a colossal head and a tabletop throne at San Lorenzo in an early architectural context, and there is other supporting evidence that the carving of massive stone monuments began before 1300 BCE at San Lorenzo (Coe and Diehl 1980:246; Pool 2007:134). Olmec sculpture in the Soconusco of Chiapas dates to at least 1100 BCE and most likely to 1250 BCE (Clark and Hodgson 2008; Clark and Pye 2000b; Pinkowski 2006), so those at San Lorenzo that were being copied must be at least this early. Given the site histories, arguments for a late chronology for San Lorenzo sculpture (Graham 1989; Hammond 1988) and of the contemporaneity of San Lorenzo and La Venta monuments are not credible.

Many, but not all, Middle Preclassic stone monuments across Mesoamerica outside the Maya area appear to be in the La Venta style (Fig. 5.4; see also Grove, Chapter 3, this volume), but such labeling of styles colors their interpretation in favor of La Venta's presumed dominance. Sculptures are low-relief carvings on boulders or rock faces, generally of standing figures shown in profile. Mural art in the same regions relates to the stone carvings in theme and presentation. I think most of these monuments and paintings date to 900–750 BCE, soon after the founding and establishment of La Venta as a city and its rise to prominence, but secure evidence for dating these monuments is lacking (Clark et al. 2010). Some carvings could be earlier, and those along the Usumacinta River on the edge of the Maya lowlands are clearly later (ca. 600–500 BCE, see below). Stone sculptures found at La Venta suggest a developmental sequence from large boulder stelae to smaller stelae shaped on all sides. Four of the seven stelae found at the base of the great pyramid are carved as giant incised celts (Porter 1992), and one is a giant scepter (González Lauck 2010b). The upper registers of the giant celts display the frontal images of a bundled earth or corn god, as on some jadeite celts (Fig. 5.5).

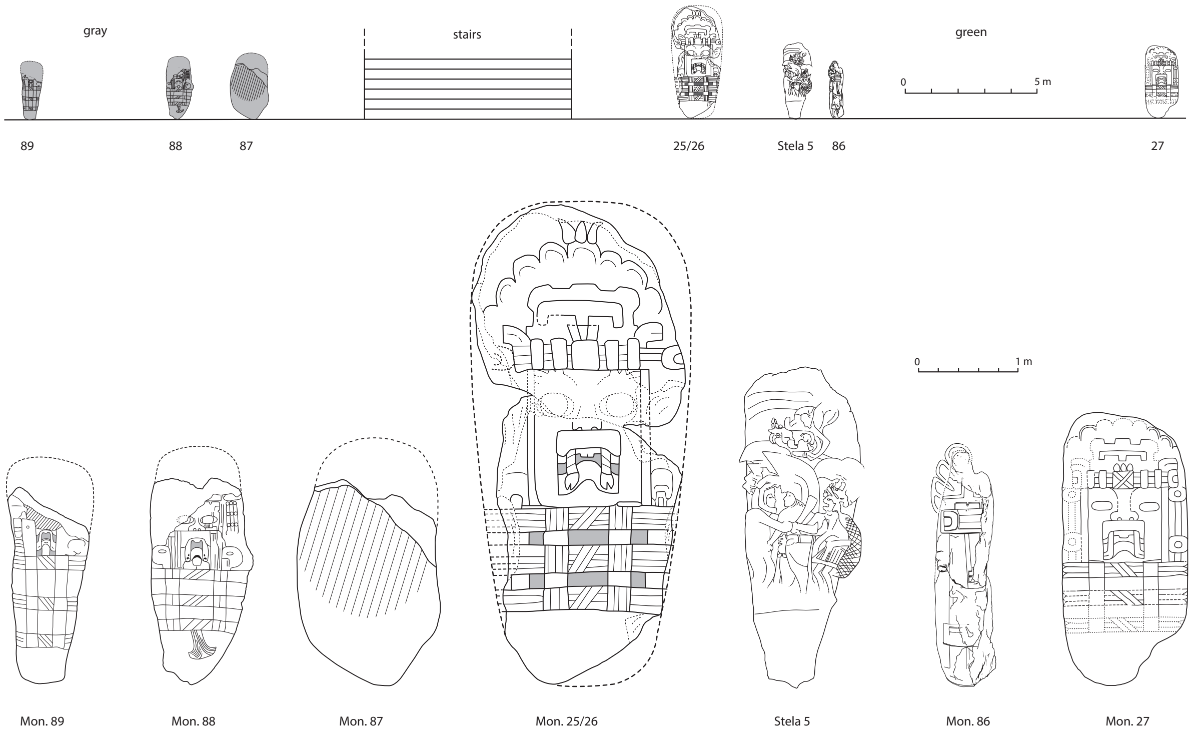
The idea of erecting stelae at La Venta probably derives from the earlier practice of placing jade and greenstone axe offerings, as seen at El Manatí and La Merced (Jaime Riverón 2003; Ortíz and Rodríguez 1994, 1999, 2000, 2008; Ortíz et al. 1997). At La Merced, plain and carved axes were planted on their poll ends, with the broader bit or blade ends in the upright position (Rodríguez and Ortíz 2000), as most obviously seen with Offering 4 at La Venta, the famous scene of jade and serpentine figurines standing in front of upright celts (Drucker et al. 1959:152, fig. 38). Some axe-like stelae at La Venta were carved from green rock and positioned in this same manner, with their carved images facing the plaza. The final architectural setting of these monuments dates before 400 BCE, providing a terminal date for these sculptures (González Lauck 1996:75; 1997:93). The massive Stela 2 depicting a king in frontal view probably dates to about 700 BCE, given its similarities to boulder sculptures and its high relief. I think Stela 3 dates to about 600 BCE. It is similar in style and theme to both Stela 2 and Stela 5 (González Lauck 1988: fig. 2; 1994: figs. 6.9–6.11; 1997:87) (see Fig. 5.5).

Foreign Relations

Stela 3 is 4.27 m tall and weighs 26 metric tons (Heizer 1967:28). It has a well-known scene of two life-size standing men in elaborate garb facing



5.4. Distribution of early Middle Preclassic bas-relief monuments in Mesoamerica.

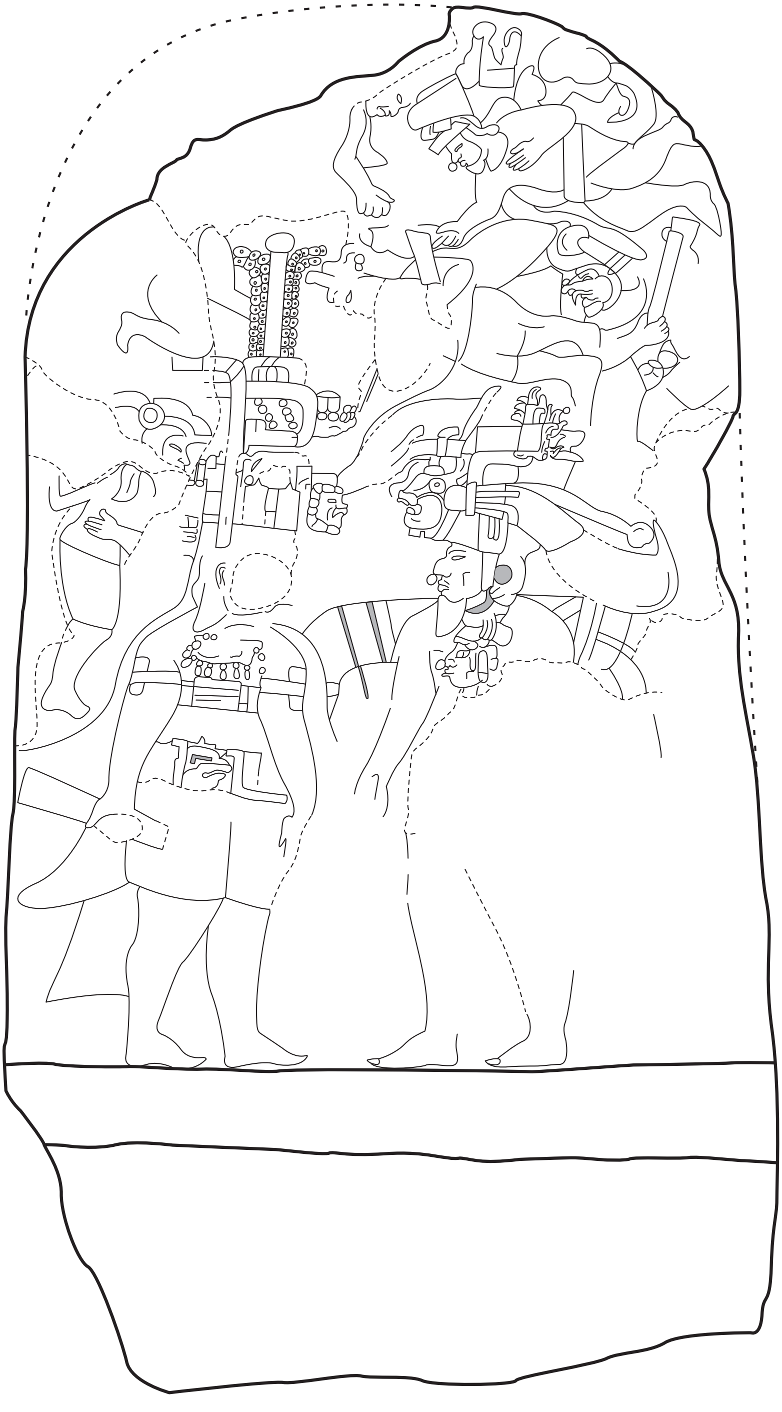


5.5. Reconstruction of the stelae on the south side of the Mound C-1 at La Venta. Redrawn from photographs and drawings (González Lauck 1988, 1994, 1997; Porter 1992), with additions from personal examination of the monuments.

each other (Fig. 5.6). One, the famous "Uncle Sam" bearded figure standing on the right, is a personage unique in Olmec art; he looks rather Mayan. Standard interpretation of this scene as a narrative of an event involving a foreign dignitary or "outlander" (Covarrubias 1957:67; Heizer 1967:30; Pool 2007:167) strikes me as probable. Uncle Sam, with his false beard and unusual nose (incorrectly rendered in most drawings), does not look Olmec. Both figures are shown with elaborate headdresses, jade jewelry, and clothing. One does not have to know the specific polity that this individual represented, however, to realize he was accorded equal billing on this stone marquee of foreign diplomacy. Late kings of La Venta apparently publically acknowledged and recognized in a permanent medium the existence of political and social equals among their neighbors or friends. It is interesting that the face of the presumed Olmec dignitary on Stela 3 has been obliterated and that the face of Uncle Sam was left intact—perhaps an indicator of changing political fortunes, near the end of La Venta's history, of the individuals involved and the polities they represented.

Different classes of artifacts found at La Venta demonstrate that the city started strong and declined through time. Most of the spectacular offerings, monuments, and constructions at the site date to the first centuries of its history (Drucker et al. 1959; González Lauck 2007). Through time, the site saw the incorporation of new elements from different places. The final centuries of occupation at La Venta witnessed unincorporated foreign elements indicative of relations between peers, most evident in the confrontation represented on Stela 3. The burial record at the present time appears to counter the evidence of the massive offerings. The only known tombs date to the last construction phase of Complex A. They were the easiest to find. The construction of the basalt column tomb, I think, demonstrates the declining power and reach of the La Venta kingdom. The natural columns for this sepulcher were clearly taken from the palisade built several centuries earlier (see Wedel 1952:65), so some of the expensive materials for this burial facility were recycled from the site itself.

Obsidian source analyses indicate access to obsidian from both the major source areas of western and eastern Mesoamerica. The majority of the obsidian found at the site came from Guatemalan sources (Rebecca González Lauck, pers. comm. 2008). Obsidian that arrived at the small dependency of San Andrés just north of La Venta is the most abused I have seen in 30 years of analyzing collections (Doering 2002; Pohl et al. 2002).



5.6. Stela 3 from La Venta showing the possible meeting of Olmec and foreign dignitaries. Drawn from a photograph (Heizer 1967:plate 1).

Obsidian appears to have been in short supply at this dependent site, and it was used and broken up until there were just slivers of shattered blades left. Obsidian flakes and blades were more common at La Venta itself and at other dependencies such as Isla Alor (Rabb et al. 2000, 2001; Stokes 1999; William Rust, pers. comm. 2007).

Imported pots from the Maya area show up at La Venta by 800 BCE and become more frequent through time (Andrews 1990; von Nagy 2003:822, 834, 843; von Nagy et al. 2002; von Nagy et al. 2000). These Maya imports (mostly Joventud Red) date to the Mamom phase. Some pots were also imported from central Chiapas (von Nagy 2003:843). Not all red pottery at La Venta was imported; some was made locally to imitate the imports (Rust's Uxpanapa ceramic group, pers. comm. 2007). I am not aware of any La Venta pottery at lowland Maya sites, but white-and-black bowls (from the Franco complex at San Andrés) show up in Chiapa III times at San Isidro (Lowe 1999), Chiapa de Corzo (Warren 1959:101), Mirador (Agrinier 2000), Ocozocoautla (personal observation), La Libertad (Miller et al. 2005), Izapa (Lowe et al. 2013), and possibly at Tres Zapotes and Estero Rabón in Veracruz (King 2002; Pool 2007:146; von Nagy 2003:199). There are also two low-relief monuments in the epi-Olmec style from the Ocozocoautla and Villa Flores region, the only such carvings currently known for central Chiapas (see below). The possible imported red serving bowls at La Venta need to be analyzed to determine their loci of manufacture. Some could have come from Chiapas, but I suspect most are from the Maya lowlands.

The blue-green jade at La Venta came from sources in highland Guatemala (Seitz et al. 2001; Taube 2004), and the many tons of serpentine came from Oaxaca (Jaime Riverón 2003). I once thought that San Martin Jilotepeque obsidian and Guatemala jade arrived at La Venta via the string of centers along the Grijalva River (Clark and Hansen 2001:11; Clark and Lee 1984, 2007), starting at La Libertad up river, coming through Chiapa de Corzo, Ocozocoautla, and San Isidro to arrive at La Venta (Fig. 5.1). This is a natural travel route. However, the artifacts I have recently seen from La Venta and nearby San Andrés convince me I was wrong about this trade route, at least for late La Venta times. Residents at La Venta had different supply lines and obtained different products than I supposed. For its final phase, most of the obsidian came from highland Mexico sources instead of from Guatemala, counter to my speculation based on the pioneering obsidian source studies at La Venta in the 1970s (Jack et al. 1972; Jack and Heizer

1968; Sisson 1976). As for jade, the distribution of late Olmec sculptures and carved axes along the edge of the Maya lowlands (García Moll 1979; Ochoa 1983; Ochoa and Hernández 1977; Rivero Torres 1992:10) suggests the principal trade route to the Guatemalan jade mines was up the Usumacinta and overland through the Northern Maya Highlands (Fig. 5.4). Kaminaljuyu and centers in the Chiapas interior were off the main route.

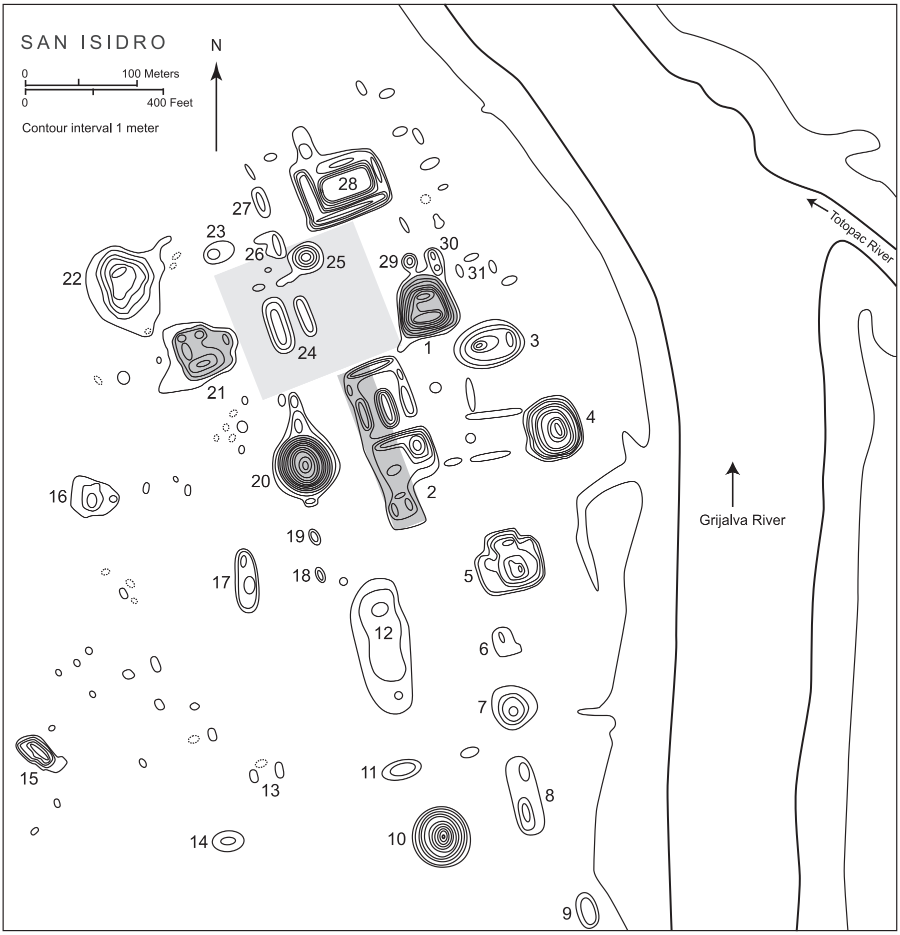
SAN ISIDRO, CHIAPAS

San Isidro is located about 135 km southwest of La Venta near the northern edge of the rugged northern highlands of Chiapas in the Middle Grijalva Region (Lowe 1998a, 1999). This is an area of high rainfall and evergreen tropical forest. San Isidro is the northernmost Preclassic center in Chiapas and one of the closest regional centers to La Venta. San Isidro extends over 100 ha and was a regional center in early Olmec times, closely related to San Lorenzo (Lowe 1998a, b). The site was nearly continuously occupied until Late Classic times and was a locus of occasional pilgrimage and offerings into Early Postclassic times (Lee 1974a; Lowe 1999). San Isidro was advantageously situated on a broad terrace on the left bank of the Grijalva River and about 30 km upstream from the Grijalva's confluence with the La Venta River and the dry-season rapids or *"mal paso"* (bad passage) there (Lee 1974a, b; Lowe 1981, 1998a, 1999). Limited excavations were undertaken at the site from March to June in 1966 as part of salvage operations for the Mal Paso reservoir, with many of the numerous features at the site recorded as dammed water began to cover the site (Lee 1974b; Lowe 1967, 1981). Evidence that San Isidro was the seat of an ancient kingdom is its size, the number, size, and arrangement of its earthen platforms and offerings, and its regional settlement pattern. Some axe offerings are similar to those known for La Venta (Drucker 1952; Drucker et al. 1959) and La Merced (Rodríguez and Ortíz 2000; Ortiz and Rodríguez 2008).

Site and Kingdom History

The main mounds at San Isidro were constructed mostly during the Middle Preclassic. Some were erected over low clay platforms built about 1200 BCE (Fig. 5.7). Of the numerous large mounds at the site, only six were somewhat adequately tested in the few months available for exploration. Test excavations were carried out at Mound 20 (Lowe 1981, 1998a, 1999), Mound 4 (Lee 1974a, b), Mounds 1, 2, 3, and 29 (Lowe 1998a), and near other mounds (Lowe 1999). Rising water prevented excavation to sterile layers in the tallest mounds, so information is only available for the latest stages of construction. Thus, many of these mounds are presumed to be older than the periods verified with the partial excavations. Lowe (1967:136) reports that traces of early Olmec occupations (coeval with the San Lorenzo phase at that site) were recovered from all areas of San Isidro where excavations penetrated to sterile layers. At 1200 BCE, San Isidro was at least 7.5 ha (Lowe 1998a:37) and probably three to four times that size. A decapitated sculpture in the round of a seated jaguar was found at this site (Lowe 1998a:48; Navarrete et al. 1993: fig. 3), similar to those known for Loma del Zapote near San Lorenzo (Cyphers 2004a:246–48). Along with four sculptures and several fragments found in the Soconusco region (Clark and Hodgson 2008; Clark and Pye 2000b), this headless jaguar is one of the few early Olmec sculptures known outside the Gulf lowlands. San Isidro is also one of the few sites outside of Olman for which early platforms are reported (Lowe 1981, 1989b, 1998a, 2007; Navarrete et al. 1992; see Clark 1997 for others). The fate of San Isidro appears to have been tied up with the fortunes of San Lorenzo. Both experienced the same episode of abandonment at the end of the Early Preclassic period. San Isidro was again reoccupied beginning about 900 BCE, and pyramid-building began soon after (Lowe 1999).

The major building efforts at San Isidro were contemporaneous with those at La Venta, but with different results. As described in following sections for other kingdoms, many new regional centers built in central Chiapas during the Middle Preclassic were based on the designed layout of La Venta. San Isidro, La Venta's closest neighbor in Chiapas, is an ironic exception. San Isidro "includes four pyramidal mounds, two rectangular courts, and eight platform complexes ranging from simple to complex substructures of huge dimensions" (Lowe 1967:136). Based on Lowe's (1981, 1998a) observations of early clay platforms under Middle Preclassic mounds, I suggest a possible reason for the differences in layout of these two centers may be that the Middle Preclassic occupants at San Isidro deliberately erected their pyramids over earlier platforms to conserve or capture their essence. Among the centers described here, San Isidro is one of two that had relic mounds on its future cityscape by the Middle Preclassic. San Isidro exhibits evidence of planning along major and minor axes and of large platforms clustered around north-south trending plazas (see, Lowe 1999:30–33).



5.7. Site map of San Isidro.

In an earlier study, Richard Hansen and I described a Middle Formative Chiapas pattern, or MFC complex (Clark and Hansen 2001). This consists of a long north-south plaza (sometimes a double square) with a pyramid at the northern end of this plaza, a long mound with an offset eastern pyramid (an E-Group) on the southern end, a large acropolis or broad mound on the eastern margin of the plaza, and a row of smaller platforms to the west of the plaza—basically the hypothesized central and early part of La Venta (Fig. 5.3). These observations of site layout build on those made by Andrew McDonald (1974, 1999) and Lowe (1977) for the patterning of

Middle Preclassic centers in Chiapas. Both these scholars include San Isidro among the Middle Preclassic centers in Chiapas that conform to their pattern. I do not see sufficient evidence that San Isidro conforms to the full MFC pattern. Lowe (1998a:85; 1999:31) argues that Mounds 20 and 2 at San Isidro constitute a solstice observatory or astronomic complex (an E-Group). This is only half of the MFC pattern. Future research may reveal that another critical component of the MFC complex is architecture techniques. Lowe (1967:136) observes that at San Isidro "Platform floors and walls were of clay, frequently highly polished and fired and having inset stairways." The practice of firing the clay veneer of a mound to give it a red color has also been described for Chiapa de Corzo, Finca Acapulco, La Libertad, and Tzutzuculi.

The survey results of the Mal Paso project show that one peak period of occupation was the Middle to Late Preclassic (Lee et al. 2013; Martínez Muriel 1988:103; Martínez Muriel and Navarrete 1978:233). Besides San Isidro, at least two Middle Preclassic sites in the region, La Vega del Laurel and El Maritano, had small pyramids by this time (Lee 1974a:6; Lee and Clark 2015; Lowe 1991:114, fig. 10; 1998a:50; 2007:99; L. Lowe 1998:35). La Vega del Laurel, erroneously published as "El Laurel" (Lowe 1991, 2007), is located across the river and about a kilometer east of San Isidro. It had a small pyramid by 800 BCE (Lee and Clark 2015) and likely was a secondary center to San Isidro by Chiapa II-B times. Excavations have verified Middle Preclassic features for three other sites in the region: El Achiote, Banco Nieves, and San Antonio (L. Lowe 1998). An early elite burial dating to Chiapa III times was excavated at El Achiote. This individual had, among other things, a necklace of 460 jade beads, a small jade earspool, and several ceramic offering vessels. El Achiote is located about 40 km from San Isidro by river (Lee et al. 2015). It may have been an independent center or a secondary center. More sites had been occupied, of course. The limited information from salvage excavations suffices to indicate a three-tier settlement hierarchy by 750 BCE in the Middle Grijalva region. This settlement pattern continued at least until 400 BCE (Lee 1974a, b). In a final synthesis on San Isidro, Lowe provides the following summary observations.

> At the close of the Dzewa phase [Chiapa II-B], surely before 600 BCE, the proto-Zoque Olmecs of the Middle Grijalva had established their regional center and community, the most important in the San Isidro

> region. During this time, in Mound 20, we find a pyramidal platform 7–8 m tall. This same architectural development is also evident in the large acropolis-like platforms at Mounds 1 and 4 during the Felisa phase [IV], both constructed on top of occupations of the Cacahuanó [I] and Dombi [II-A] phases. Other platforms at the site that were not explored probably have similar sequences of growth. The locations of structures along axial lines, leaving open places for plazas, suggests planning and probably a division of tasks and ranks among the population. It is important to note that Mound 20 at San Isidro, along with the elongated platform at Mound 2, would form part of an astronomical commemoration complex, emphasized in the Equipac [III] or Felisa [IV] phase, if not before (Lowe 1989b:365). (Lowe 1998a:85, my translation)

> The second half of the Middle Preclassic is well represented in Mounds 1, 4, and 29. Mounds 1 and 4 would cover acropolis-like platforms and become 8 and 10 m high, respectively, dating to the Felisa phase. Surely their centers or cores consisted of lower platforms of the Equipac and Dzewa phases, as was the case in Mound 20. Pyramids 5 and 10, also over 10 m tall, were not explored but they probably had their own sequence of development starting in the Middle Preclassic. (Lowe 1998a:50, my translation)

Foreign Relations

Evidence of interregional contacts for Middle Preclassic San Isidro are most apparent in ceramic similarities and in cultural practices of axial offerings. Obsidian artifacts for this site have not been reported, and I have not examined any. Jade beads, earspools, and other objects have been found at Chiapa II-B, III, and IV sites (Lowe 1998a, 1999; L. Lowe 1998). The pottery for these eras shows the closest connections to that from Middle Preclassic centers in the Chiapas interior, and the phase sequence is set up to parallel those from Mirador and Chiapa de Corzo (Lee 1974b). I can do no better than present Lowe's final assessment of ceramic ties to other regions. He saw significant connections between the inhabitants of San Isidro and Gulf coast Olmec peoples from 1300 to 500 BCE (Chiapa I–III), with a turn towards the Maya lowlands from 500–300 BCE (Chiapa IV), and then renewed ties with Gulf societies from 300 BCE onward (Chiapa V–VII).

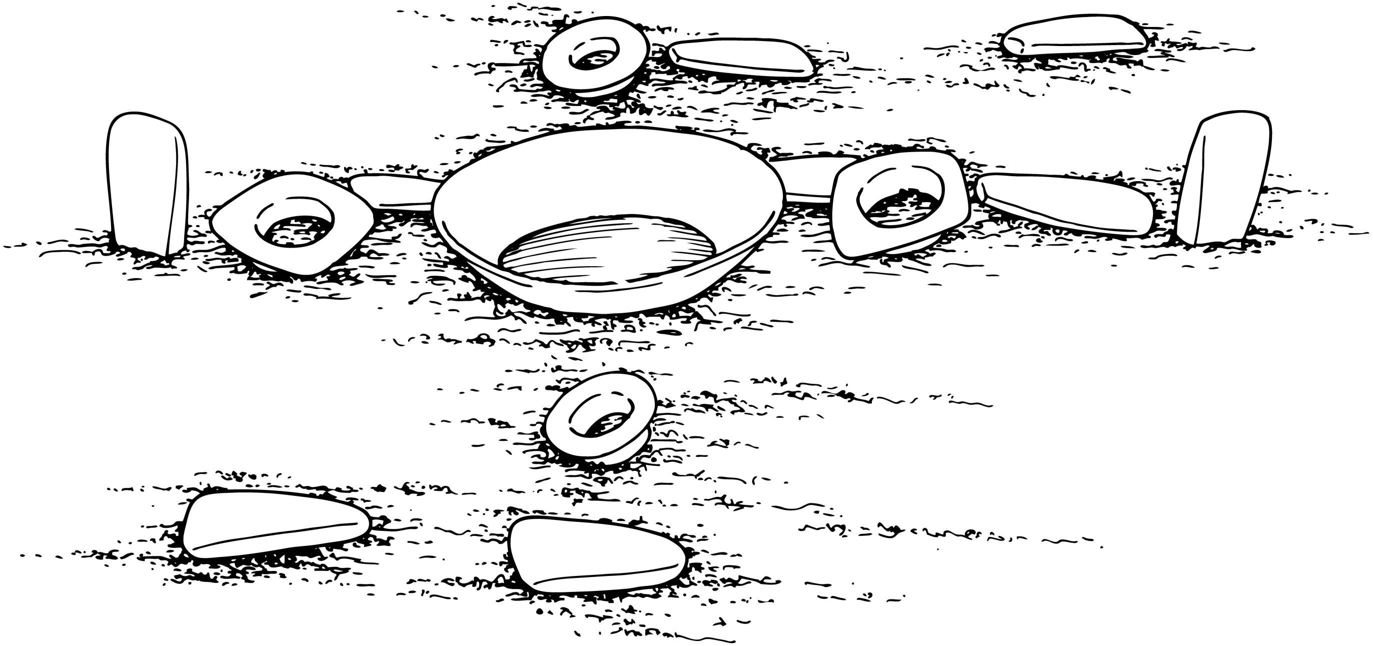
> The presence of smudged black and white ceramics in the Equipac phase, although scarce, is significant because it indicates a continual interaction with Olmec centers in the Gulf. This interaction was typical of the other Chiapa III centers, and it greatly contrasts with the situation in Chiapa IV times when this [black-and-white] tradition practically disappeared. During Chiapa IV times, slipped black, red, and orange monochromes were in vogue, indicative of constant interaction with the lowland Maya. In western Chiapas during Chiapa V times there was a reintroduction of white-rim black pottery, and this renewed tradition suggests that the Zoques rejected part of the Maya influence and returned to the older system of interaction. In the Equipac phase, the population maintained their roots and relationships with the Gulf, even though they were interacting more frequently with other neighbors. (Lowe 1999:108–9, my translation)

> We can consider the absence of typical white-rim black Olmec pottery at Chiapa IV sites—and its wide distribution during Chiapa V times in western Chiapas—as evidence of a special readjustment that occurred at the end of the Middle Preclassic. At first glance, this phenomenon could have two simple explanations: (A) a new and dominant stylistic influence arrived in Chiapas from the Maya lowlands during the Mamom phase, or (B) the rise of a brief development of Zoque local independence during Chiapa IV times. Whichever may prove to be the case, we must conclude that the Zoques of Chiapas and the lowland Maya of the Middle Preclassic rejected the ancient [La Venta] Olmec tradition of making differentially fired [white-rim black] vessels, for technical or aesthetic reasons, favoring instead colored, slipped monochromes. Thus, a type of "Zoque development towards greater independence" postulated as a possibility for Chiapas during Chiapa IV [500–300 BCE] could still closely share the local style of the Maya lowlands (we note that the developed style of Usulutan negative-resist, typical of Central America, did not reach Chiapas in this period, and neither was the predominant gray pottery of Oaxaca influential). The situation suggests that the Zoques of Chiapas during Chiapa IV times abandoned the cultural mores of the Gulf Olmec, as we understand them (or they limited their reciprocal exchange; much of the early black-and-white pottery in Chiapas was imported from the Gulf). (Lowe 1999:118–19, my translation)

It is worth noting that pottery was imported into San Isidro, Chiapa de Corzo, and other Chiapas centers from the Maya lowlands in Chiapa V times, as were pots from the Valley of Oaxaca (Lowe 1999, 2007; L. Lowe 1998:35; Miller et al. 2005; Warren 1959). Christopher von Nagy (2003:199) identified some sherds from imported pottery vessels from La Venta at San Isidro.

San Isidro is best known for a series of jade axe and pseudo-axe offerings found extending east of Mound 20 on the short axis of the site (Fig. 5.8; see Lowe 1981: figs. 4–7). In his early report, Lowe (1981) assigned these to the Chiapa III or Equipac phase. In his final revision of Chiapas Preclassic chronology (Lowe 1998a:59; 2007), he reassigned them to the Chiapa II-B or Dzewa phase (850–750 BCE). These "stone chisel or axe offerings [were] laid out much in the La Venta Olmec manner, both with and without associated human interments. These offerings...followed an axis extending westward beneath one of the major pyramids and an unknown distance beyond the center of the plaza 25 m to the east" (Lowe 1967:136). Given the limited excavation possible at San Isidro, we have no basis for extrapolating the pattern because other alignments were not tested. The earliest axe offering in the San Isidro or Mal Paso region dates to the Cacahuanó phase (1300–1100 BCE) in Mound 3 at El Maritano (Lowe 2007:100; Navarrete 1992:122, 157, fig. 15b).

Lowe (1981, 1998a) demonstrated that axe offerings date to Chiapa II-B and III times, that they were on a west-east alignment east of Mound 20, and that the number of axes of high-quality and low-quality stone varied with each offering, as did the number of axes, ceramic vessels, and other items. The most famous is Offering 11 of Excavation 5 (Fig. 5.8). It is a quincunx of jade axes and giant earspools arranged around a ceramic bowl. It is reminiscent of early cruciform offerings at La Venta (Drucker et al. 1959: fig. 51), as well as Cache 7 at Seibal [Ceibal] (Sabloff 1975:230; Smith 1982:115–19, 243–45; Willey 1978:88–89, 97; Willey et al. 1975:44) and Caches 109 and 118 at the same site (Inomata 2012; Inomata et al. 2010), and the El Cival cache (Estrada-Belli 2004a, 2006a: fig. 3, Chapter 6, this volume; Estrada Belli, Bauer et al. 2003) in the Maya lowlands. Offering 11 at San Isidro is unusual because two of the axes were set upright—an attribute also seen at La Venta (Offerings Nos. 1, 4, 13, 1943-D; Drucker et al. 1959), at El Cival in northern Guatemala, in earlier offerings at La Merced (Jaime Riverón 2003; Rodríguez and Ortíz 2000), and in recent offerings found at Chiapa de Corzo (Bachand and Lowe 2011). Celts and axes in all



5.8. Cruciform Offering 11 from San Isidro showing the jade earspools and standing jade celts around a ceramic bowl.

the other caches at San Isidro were placed horizontally, with their long axes arranged east-west.

The axe offerings at San Isidro are presumed to be Olmec because similar offerings were first reported from La Venta (Drucker 1952; Drucker et al. 1959). Axe offerings at La Venta were placed along the principal north-south axis rather than east-west, as at San Isidro. It is worth pointing out that the alternative axial lines at both these sites were not investigated, so we still do not know whether these differences represent real differences rather than accidents of excavation strategy. The axe caches found at Chiapa de Corzo (Bachand and Lowe 2011) were on the interior east-west axis of the E-Group as at Ceibal (Inomata 2012) and in a large offering pit, as at La Venta. A cruciform axe offering was found at the foot of the E-Group pyramid at Chiapa de Corzo, similar to axe arrangements at La Venta. In Lowe's interpretation, the San Isidro axe caches are on the interior axis of the E-Group there, constituted by Mounds 20 and 2 (see Fig. 5.7). There is some evidence of caches at La Venta on the east-west axis that passed through its E-Group. Offering 1940A (Stirling 1940a:325; 1943b:55) was placed just east of Altar 4, one of two altars placed on Mound D-8 marking its short axis (Drucker 1952:166; Lowe 1989b: fig. 4.10a; Stirling 1940a:325; 1943b:55). It is important to emphasize that none of the celts found at San Isidro was incised (Lowe 1977:224), so there is nothing explicitly Olmec about them. The same can be said of axe offerings in the Maya lowlands (Inomata 2012; Inomata et al. 2010). I think these offerings derived from lowland Olmec practices going back to at least 1400 BCE, as is most evident in the sequence of axe offerings at El Manatí (Ortíz and Rodríguez 1989, 1994, 1999, 2000). By 700 BCE the practice of offering axes was widely distributed across cultures, but the cruciform arrangement was not. The only other Middle Preclassic site in Chiapas known to have axe offerings in cruciform arrangements is Chiapa de Corzo.

In Chiapa IV times the types of offerings at San Isidro shifted from celts and axes to urn burials, some of them child sacrifices (Lee 1974a:75).

> Overlying the zone of axe offerings at San Isidro was a series of later Preclassic caches and burials, outstandingly exemplified by urn burials of infants or children, a trait noted within or surrounding all major pyramidal structures, with over a score being recovered by the limited excavations. Additionally, sub-floor platform offerings dating to about the

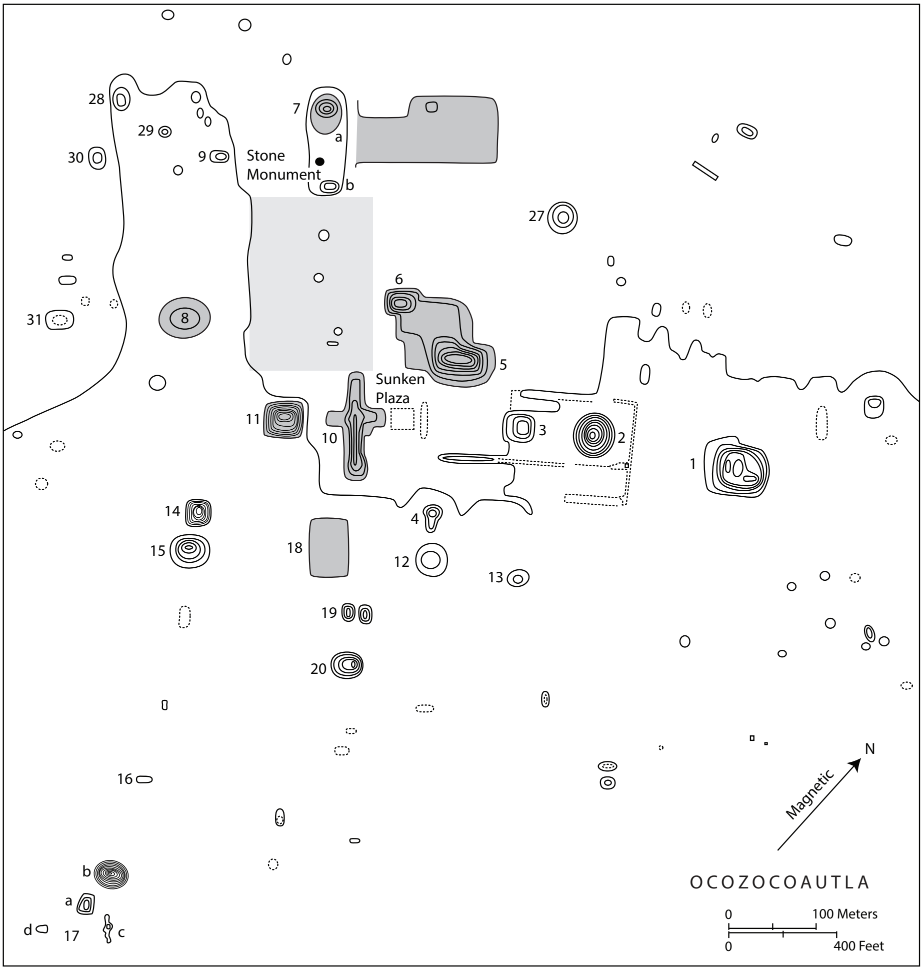
> beginning of our era appear to have originally contained hundreds of vessels, many of them of the coarse bowl type intended exclusively for offertories; there was never sufficient time to follow these giant offerings to their extremities. (Lowe 1967:136)

One obvious difference between San Isidro and La Venta is the absence of stone sculpture at San Isidro—an absence characteristic of almost all Middle Preclassic sites in Chiapas. Thomas Lee (1982, 1989: fig. 9.7c) reports a low-relief carving from Rancho Acapulco, a site a few kilometers south of San Isidro. He argues that this sculpture is a frontal image of an Olmec face similar to those reported for Tzutzuculi on the Pacific coast of Chiapas (see below; also, Fig. 5.11). The Rancho Acapulco monument is crudely executed and fragmentary (see Navarrete et al. 1993:56, fig. 22).

OCOZOCOAUTLA, CHIAPAS

This 1 km^2 site is located in the central valley of Chiapas 40 km south of San Isidro and 40 km west of Chiapa de Corzo. The site is aligned 50 degrees east of north (McDonald 1999:62). It is near the southern edge of the northern Chiapas highlands on the overland route to San Isidro. As with this latter site, Ocozocoautla had a long history that spanned the early Middle Preclassic to Classic periods, with peak periods of development in the Middle Preclassic and Early Classic. Ocozocoautla appears to have been first occupied in Chiapa II-A times (McDonald 1999:61). Many large earthen mounds at the site were built in the Chiapa III phase and exhibit formal features also seen at La Venta and Chiapa de Corzo (Fig. 5.9). At early Ocozocoautla "wall and floor surfaces of rough stones and fired clay were in keeping with building practices at the time elsewhere in Chiapas" (McDonald 1999:62). During the following phase, cut stone masonry is evident. This shift in construction techniques parallels a similar change seen at nearby San Agustin (Navarrete 1959b) and at the distant center of La Libertad (see below).

The important datum about Ocozocoautla is that it has a MFC complex comprising Mounds 10, 11, 5, 6, and 7a (Fig. 5.9). Mound 18 dates to the Chiapa III phase but is not part of the MFC complex as defined here. It is evidence, however, of a significant population and architectural elaboration at the site in this early period. An unusual feature is the cruciform

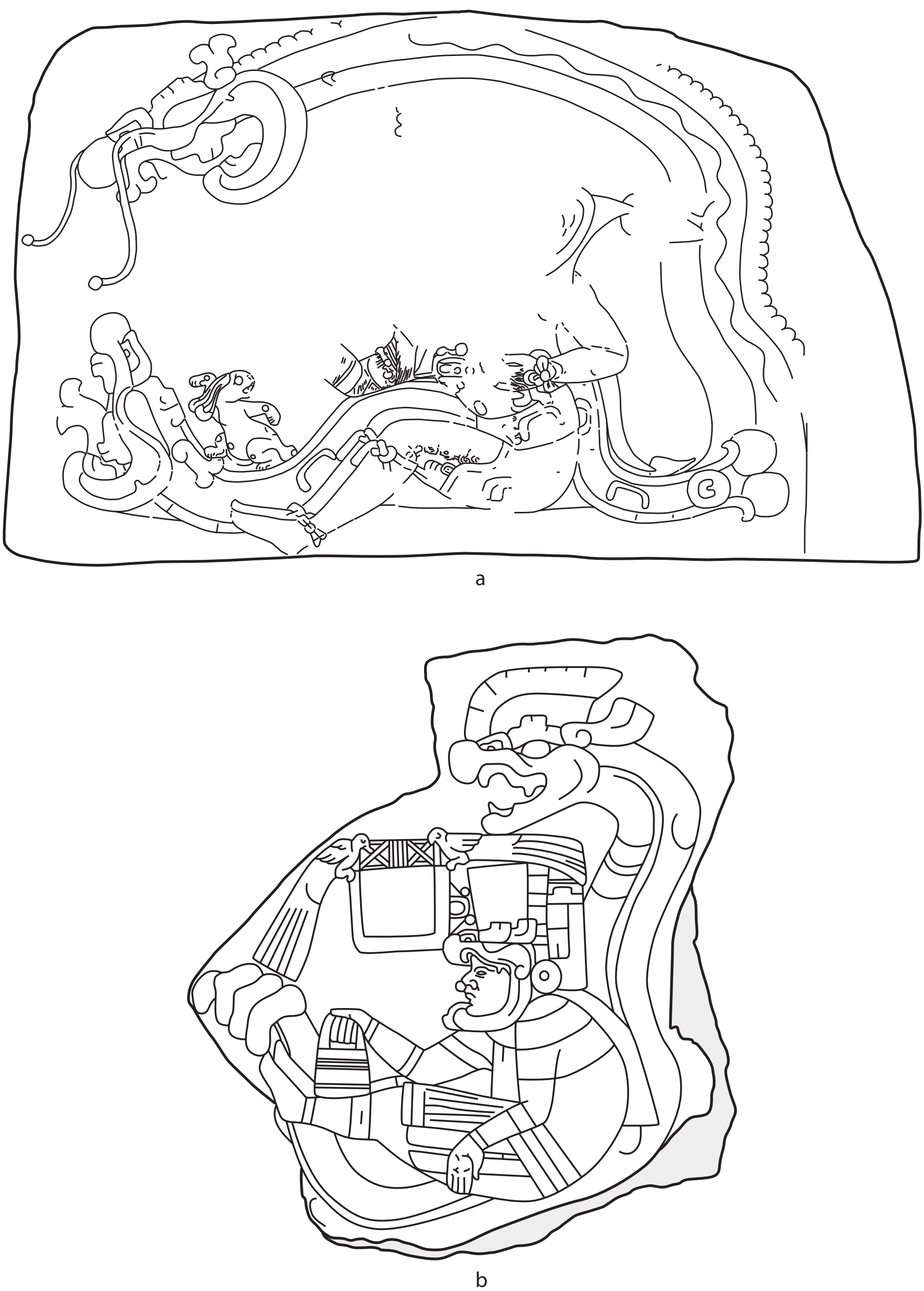


5.9. Map of Ocozocoautla. The mounds shown in gray indicate the MFC complex as well as known Middle Preclassic mounds.

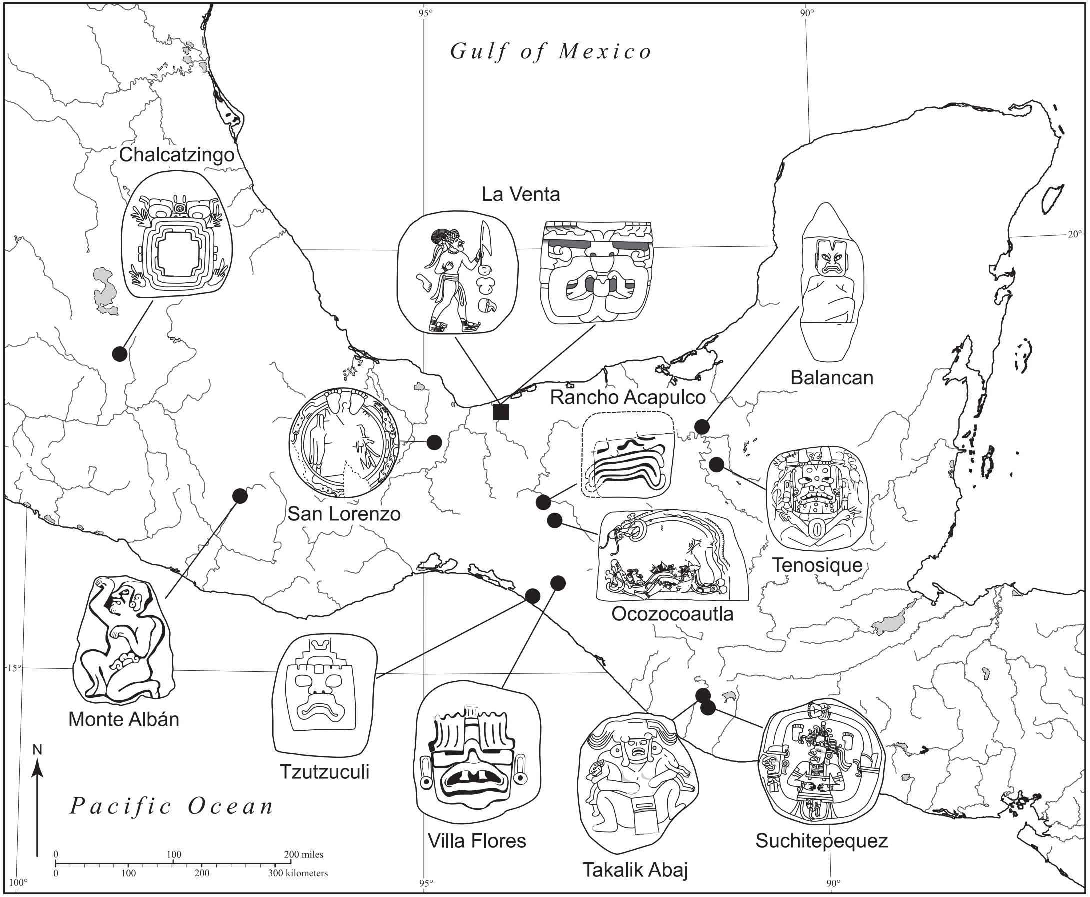
shape of the long mound in the E-Group. Its MFC complex, the size of the site, and its location within the greater region are the principal evidence that Ocozocoautla was one of a string of regional centers and kingdoms along the Central Depression of Chiapas (Lowe 1977). Excavations were undertaken at this site by New World Archaeological Foundation (NWAF) personnel in 1972–1974. No Preclassic-era elite burials are known for Ocozocoautla, but three carved jade Olmec figurines have been found in the general region (Lee 1989; Navarrete 1974), and a low-relief sculpture in late Olmec style was discovered at the site several years after excavations had been completed there (Fig. 5.10). This monument was found just south of the northern mound (see Fig. 5.9) and probably dates to the late Middle Preclassic period (Tejada and R. Lowe 1993). The monument is carved on a thick slab of limestone and has a typical stela form, but the disposition of the carving shows the monument would have been seated with the long dimension horizontal rather than vertical. The image of the seated person encircled by a large, plumed serpent recalls the much smaller image of Monument 19 at La Venta (Drucker et al. 1959:197–200, fig. 55, Plates 49a, b). Details of the principal personage on the Ocozocoautla monument were defaced in prehistory. These sculptures appear stylistically to date to the end of the Middle Preclassic period. Most related sculptures in Mesoamerica appear to have been rather small, and with an emphasized theme of contortionists (Fig. 5.11).

Excavations were undertaken in various mounds. Mound 1 is a palace structure that dates to the Early Classic; a low platform with a Chiapa V burial was found beneath this mound (Agrinier 2013). Mound 2 also dates to the Early Classic but was built over a Protoclassic platform dating to Chiapa VI times (Gareth W. Lowe, NWAF report, May 20, 1972). A zone of Chiapa III refuse was found under this platform. Excavations showed that Mound 17 also dates to the Chiapa VI phase. Mound 15 dates to this time, too, and was systematically ravaged at the end of the period. Numerous ceramic trade wares from the Maya lowlands were found at this structure. (Maya influence in the Central Depression is discussed below in relation to Chiapa de Corzo, a site for which there is much more information.) The destruction of Mound 15 at Ocozocoautla may correspond to the burning of the Chiapa VI palace at Mound 5 at Chiapa de Corzo. The defacement and breaking of stone monuments at both sites was probably related to the destruction of these buildings (see below).

> Test pits in the long Mound 10 show it to be entirely a Chiapa III... construction. As such it joins Ocozocoautla with the ranks of a great number of similar sites, from Tres Zapotes and La Venta south across Chiapas, all of which I label as part of the Modified Olmec horizon. At Ocozocoautla there are other mounds and almost surely a pyramid of this date also. Underlying Mound 10 was a deposit of Chiapa II or con-



5.10. Middle Preclassic monuments depicting seated individuals encircled by serpents. A. Monument 1 from Ocozocoautla. B. Monument 19 from La Venta.



5.11. Distribution of late Middle Preclassic bas-relief monuments in Mesoamerica.

> temporary Late Olmec sherds. Mound 18 is a great squarish platform forming part of an even greater terrace extension crossing the center of the site. Pits in Mound 18 show it also to be almost entirely a Middle Preclassic construction. An old abandoned and deeply eroding road cut through the 8 foot high terrace edge between Mounds 10 and 18 shows some eighty feet of deliberate platform construction. Sherds from this fill show a Late Preclassic upper limit, with some connections to the great enigmatic ruin of Perserverancia on the Pacific Coast. (Lowe, NWAF report, May 20, 1972)

Only one of the buildings of the MFC complex was excavated, Mound 10, and it was found to date to Chiapa III times, beginning about 750 BCE. Test pits around this structure encountered deposits of the same age. McDonald found a specially constructed stone-lined pool just to the east of Mound 10 on the axis of this E-Group. This pool was filled in at the end of the Chiapa III phase. We can be reasonably certain that Mound 11, the companion mound of the E-Group, dates at least to Chiapa III times. The other remaining mounds of the MFC complex, Mounds 5, 6, and 7, have not been verified as early. I visited these mounds in February of 2008 and found Middle Preclassic sherds on Mounds 5 and 6, and on the large platform just east of Mound 7. Most of the sherds on this last platform date to the Chiapa II phase. The sherds directly on Mound 7 date to the Protoclassic period, but I would not be surprised if this mound covers an earlier construction.

Some white-rim black bowl fragments found in Chiapa III deposits were from vessels imported from the Gulf coast. The overall ceramic history at Ocozocoautla follows that described for San Isidro of a shift from trade with Gulf coast peoples in Chiapa III times to trade with lowland Maya by Chiapa V times, with a rejection of this Maya influence at the end of the Chiapa VI phase, or 100 CE. This is also the pattern at Chiapa de Corzo and Mirador. Clearly the histories of these kingdoms were linked.

MIRADOR, CHIAPAS

Mirador is the largest site located in the western end of the Central Depression, the narrow valley that runs through the middle of Chiapas. As with Ocozocoautla, Mirador was advantageously located to control travel along a natural route that ran north-south through Chiapas and connected the Pacific coast with the Gulf coast. It was also on the principal east-west route to the Isthmus of Tehuantepec and Laguna Zope (Agrinier 1984). Site history parallels those of its sister centers at San Isidro and Ocozocoautla. The Mirador locale was first occupied in the Early Preclassic about 1600 BCE (Agrinier et al. 2000) and was abandoned in the Late Classic period. No sculptures or elite burials are known for the Preclassic era of the site. A small greenstone carved Olmec axe was found at the site (Agrinier 1975: fig. 20), and two small jade Olmec figurines have been reported nearby in Miramar and Vistahermosa (Lee 1989: fig. 9.8b). These artifacts show connections to the coastal Olmecs and likely date to Chiapa II-B or III times.

The scant information on regional settlement indicates that both sides of the La Venta River that flows by Mirador were heavily populated for a distance of 15 km and about 2 km on each side during the Late Classic period (Peterson 1961, 1963:2). Several of these sites also had some Middle and Late Preclassic occupation (Clark 2014; Peterson 2014). Other Middle Preclassic pyramid sites in the greater Cintalapa-Jiquipilas Valley are Tiltepec Alto and Vistahermosa (López Jiménez and Esponda 1998, 1999; Treat 1969, 1986). Given their distances from Mirador, these two sites are assumed to have been independent, smaller centers (Lowe 1969:357; 2007). The Mirador locale was the heart of Middle Preclassic occupation, with 11 sites within an 8 km radius having Chiapa III and IV occupation (Clark 2014). None of these sites has been excavated so their pyramids have not been dated. Mirador was clearly a capital center; secondary centers have yet to be identified. As at Ocozocoautla and Chiapa de Corzo, the evidence that Mirador was the seat of an ancient kingdom is largely internal to the site itself, coupled with the overall distribution of large pyramid centers in central Chiapas (Lowe 1977). During the Middle Preclassic, Mirador, Ocozocoautla, and Chiapa de Corzo were participants in the same ceramic sphere, with the same ceramic types (Agrinier 1975, 1984, 2000; Agrinier et al. 2000; Clark and Cheetham 2005; Lowe 1999, 2007).

Mirador was probably home to Zoque speakers throughout its history. It was first occupied in the Early Preclassic (Agrinier et al. 2000; Lowe 2007), but the large pyramids and plazas at the site were not built until about 750 BCE (Agrinier 1970, 1975, 2000; Lowe 1999). This ceremonial center of 32 earthen mounds covers 1.5 km^2 and shares basic similarities in layout to Ocozocoautla, Chiapa de Corzo, Finca Acapulco, La Libertad, and La Venta, and its mounds were coeval with those at these other centers. The MFC complex at Mirador includes Mounds 10, 12, 20, 25, 27, and 33 (Fig. 5.12). All but Mound 33 have been tested and found to have been constructed by 750–700 BCE. The main axis of the site is 8 degrees west of magnetic north, similar to that at La Venta (Agrinier 2000:3).

The E-Group at Mirador consists of Mound 25 flanked on the west by Mound 20, a mound 15 m tall. During its first stage of construction, Mound 20 was a 5 m high clay platform with a wattle-and-daub superstructure, with stairs on its eastern side facing Mound 25 (Agrinier 1970:9). During the Chiapa IV phase, this mound was elevated to 12 m in height. The flanking 100 m long Mound 25 to the east was tested with one excavation through its center. This platform was 20 m wide and 4 m high and constructed at the same time as Mound 20. "The contour of the mound [25] suggests two buried stairways: a main one to the east side and a rear one on the west side facing Mound 20" (Agrinier 2000:4).

The northern mound on the main axis is Mound 10. During Chiapa III times, this was only a 70 cm high platform (Agrinier 1975:6). Eventually it became the second tallest mound at Mirador, but it was not a significant mound in terms of size or labor investment when the center was first built. Mound 12 or 33 may have been the original small platform associated with the MFC pattern at Mirador. These are nearly equally spaced from the axial line that bisects the E-Group. Mound 33 has not been tested. Mound 12 is 2 m high and 28 m in diameter. Investigations there revealed nine superimposed floors dating to 700–650 BCE (Agrinier 2000:31).

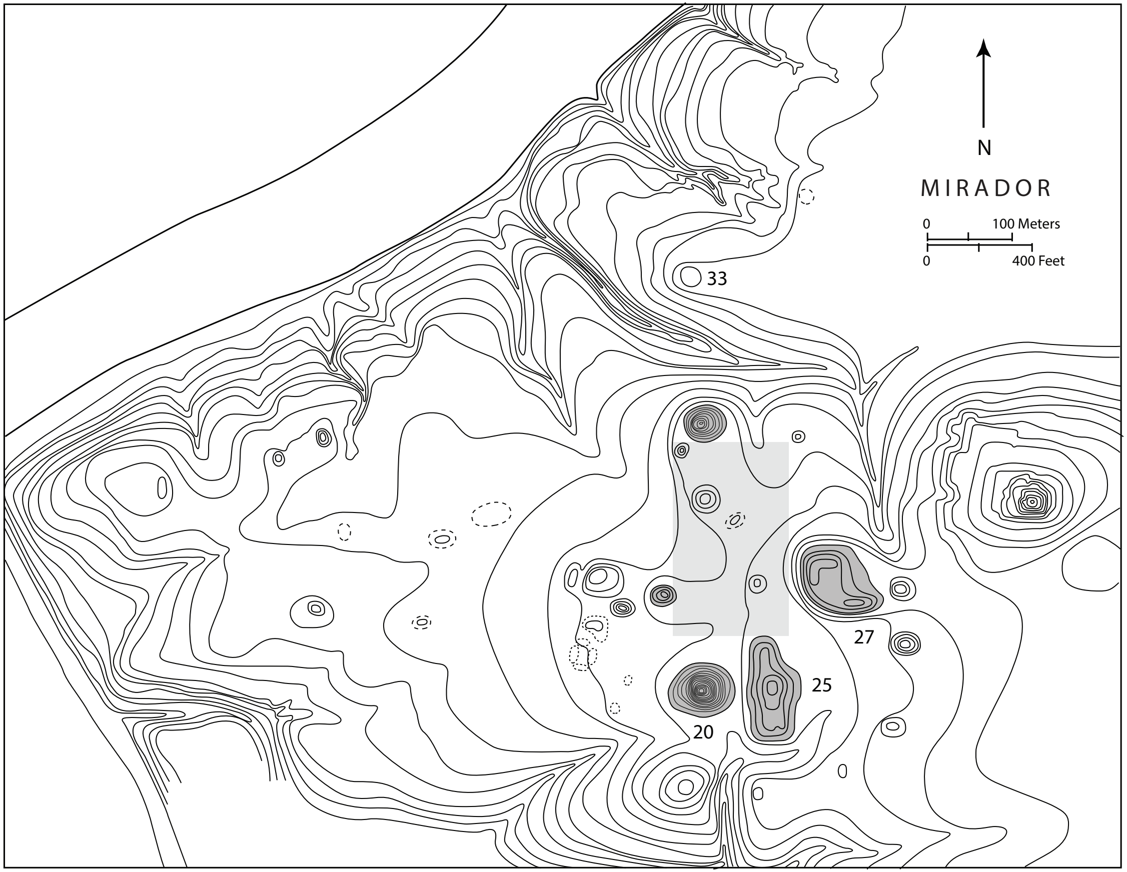
Mound 27 was built on the east side of the plaza. Extensive trench explorations of this acropolis revealed a complex construction history, with platform building being limited to Chiapa III times. Pierre Agrinier (2000) describes six construction episodes for buildings discovered inside this platform. The acropolis covers earlier stages of what I presume was the same functional complex, but the earliest buildings were separate and only later elevated on the same platform. The original separate small platforms coalesced with later expansions. All the sub-platform structures were associated with trash pits, hearths, caches, and subfloor burials, an indicator of domestic activities and overall function. What began as multiple platforms became a large elevated platform, presumably with multiple perishable buildings on top. Of particular interest is a stone drain 57.5 m long associated with this complex. It is oriented 15 degrees east of magnetic north (Agrinier 2000:24). Portions of another, parallel drain were also recovered. Agrinier suggests that water drained from the Mound 27 complex ran off to the north to a prepared reservoir. Another reservoir was located 200 m east of Mound 27 (Agrinier 2000:3). Reflecting pools or reservoirs have been reported for Ocozocoautla and Izapa (Gómez Rueda 1995, 1996b; Lowe et al. 1982).

The best indicator of external relations at Mirador comes from pottery. No obsidian for the Middle Preclassic has been analyzed or is available for analysis. A fragment of a large, stemmed macroblade of Colha (Belize) chert was found at this site (Clark and Lee 2007:115), probably dating to Chiapa V times. Two whole stemmed macroblades of Colha chert were found in Tomb 7 at Chiapa de Corzo (Lowe and Agrinier 1960:40, 42), and two fragments were recovered from La Libertad (Clark 1988:63). Tomb 7 dates to the Guanacaste or Chiapa V phase (see below). All these chert artifacts came ready-made from Belize and indicate trade in valuable goods with the lowland Maya, starting before 300 BCE. Shifts in pottery styles reveal the same connections.

Similar to the history of San Isidro, the earliest pottery at Mirador was part of the San Lorenzo horizon and exhibits close connections to the Gulf coast (Agrinier 1984; Clark and Cheetham 2005). These connections continued until the Chiapa IV phase, at which time there was more influence coming from the Maya lowlands. The most outstanding differences between phases was the lack of differentially fired black-and-white pottery (Lowe 1999:65) and the presence of Chicanel phase, Sierra Red pottery (Lowe 1999:81). The Late Preclassic (Chiapa V) was a time of great change as Mirador developed its own special style of ceramic vessels, incense burners, and figurines (Lowe 1999:91–92). The "designs of early Chicanel ceramics of the Late Preclassic lowland Maya were incorporated into the local Zoque tradition, notably in the production of vessels of the Mirador Group, Vitrified Orange (Peterson 1963:16–19, figs. 14–15, 37–49, *passim*, 75); Vitrified Orange ceramics have been confused for 'Mars Orange' of the Maya area" (Lowe 1999:92, my translation). As at San Isidro, another marker of the Chiapa V phase at Mirador was the resumption of differential firing, presumably reflecting renewed ties to Gulf coast peoples.

CHIAPA DE CORZO, CHIAPAS

Chiapa de Corzo is arguably the most important site in central Chiapas, not because of its size or ancient splendor—neither of which was spectacu-



5.12. Site map of Mirador, with gray coding to indicate the early mounds and plaza at the site.

lar compared to Palenque or other Classic Maya cities—but because of its unique evolutionary history and its shifting ethnic or cultural identity, by which I mean how its inhabitants chose to represent themselves socially and culturally, not their biological pedigree or bloodlines. Chiapa de Corzo is situated on the right bank of the Grijalva River just before this river enters the impassable Sumidero Canyon where steep rapids and falls render the river unnavigable. The location of Chiapa de Corzo corresponds to the broadest and most fertile levee lands along the whole course of this large river (Lowe and Agrinier 1960:1), an ideal place for agriculture as well as for benefitting from trade along the river. Chiapa de Corzo would have been a break-of-bulk or portage point for trade goods coming downriver from Finca Acapulco and La Libertad (described below). Trade goods would have been carried around the Sumidero Canyon overland to Ocozocoautla and then across the northern highlands down to San Isidro where river transport to La Venta and the Gulf of Mexico could be resumed (Fig. 5.1).

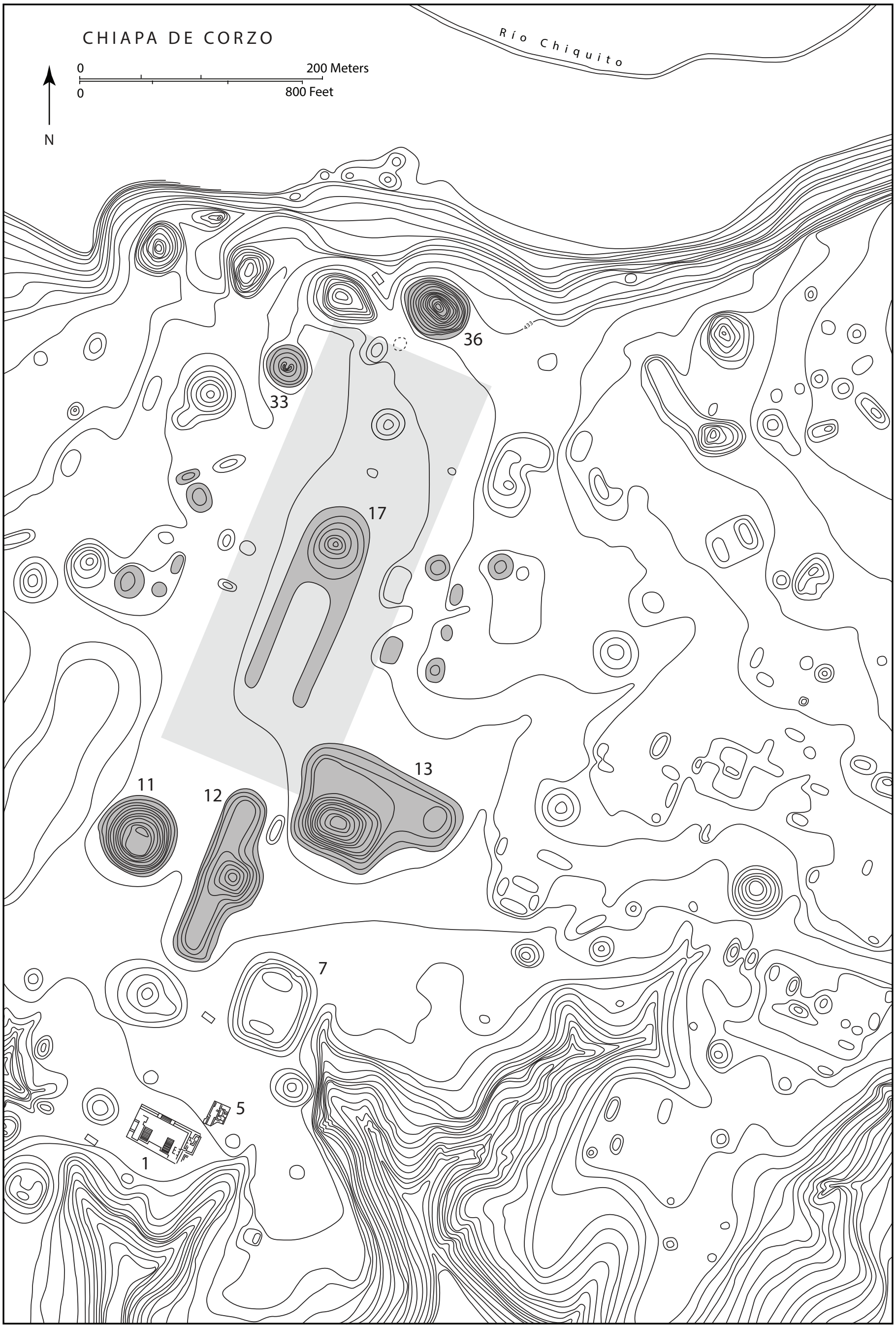
Chiapa de Corzo was first excavated in 1941 (Berlin 1946), and major excavations were undertaken there by the New World Archaeological Foundation from 1955–63 (Lowe and Mason 1965), with some later salvage operations (González Cruz and Cuevas García 1998; Lee 1969b; Lowe 1995; Warren 1978). It was most recently excavated by the NWAF in 2008 and 2010. These excavations reveal that Chiapa de Corzo was one of the earliest cities in the Chiapas interior, and it has been continuously occupied until the present day. The Chiapas Preclassic chronology and phase sequence was first established at this site (Lowe and Mason 1965; Warren 1959, 1961b, 1978), and this chronology has been used ever since to correlate all other developments in the state. During the Middle Preclassic, Chiapa de Corzo was one of the principal kingdoms in Chiapas (Finca Acapulco, located upriver, was larger in Chiapa II and III times). Chiapa de Corzo may have become a small state by 100 BCE, owing principally to meddling from kingdoms in the Maya lowlands (Clark et al. 2000). The Middle Classic period witnessed a severe decline in population and the near abandonment of the site (Lowe 1962a; Lowe and Mason 1965:226; Sullivan 2009; Warren 1978:85), with a resurgence in the Late Classic and Postclassic periods. Mound construction ceased by Classic times, but the site continued to be occupied (Lowe and Agrinier 1960:3).

Chiapa de Corzo takes it name from the Chiapanec peoples who occupied it during the Late Classic and Postclassic periods. Renowned as fierce warriors, the Chiapanecs took the city from its traditional Zoque residents, later protected it from an attempted Aztec takeover, but were unable to safeguard it from the Spanish (Berlin 1958b; Lowe 1995; Navarrete 1966). Archaeologically, Chiapa de Corzo shows evidence of Olmec occupation during the Early and Middle Preclassic periods and Maya occupation during the Late Preclassic and Protoclassic. For the Middle Preclassic period of central Chiapas, the loose archaeological label "Olmec" is another word for the ethnic and linguistic label "Zoque." Over the first 3600 years of its existence, the city has been sequentially occupied by Mixe-Zoques (pre-Olmecs), Zoques (Olmecs), Mayas and Zoques together, Zoques, Chiapanecs, Spanish, and Mexicans. The Olmecs at Chiapa de Corzo were Mixe-Zoque or Zoque speakers, depending on the time period in question and the tempo of dialectic divergence of the proto-Mixe-Zoque language during the Middle Preclassic. The rift between Mixe and Zoque speech probably began about 1000 BCE (Clark 2000a; Kaufman 1974, 1976; Lowe 1991:114; Warren 1978). Granting this plausible correspondence between archaeological labels and linguistic groups, the cultural sequence at Chiapa de Corzo can be simplified as follows: Zoques as principal occupants, an interlude of Maya elites and kings lording it over the locals, a return to Zoque self-rule, conquest by Chiapanecs, and much later by Spaniards.

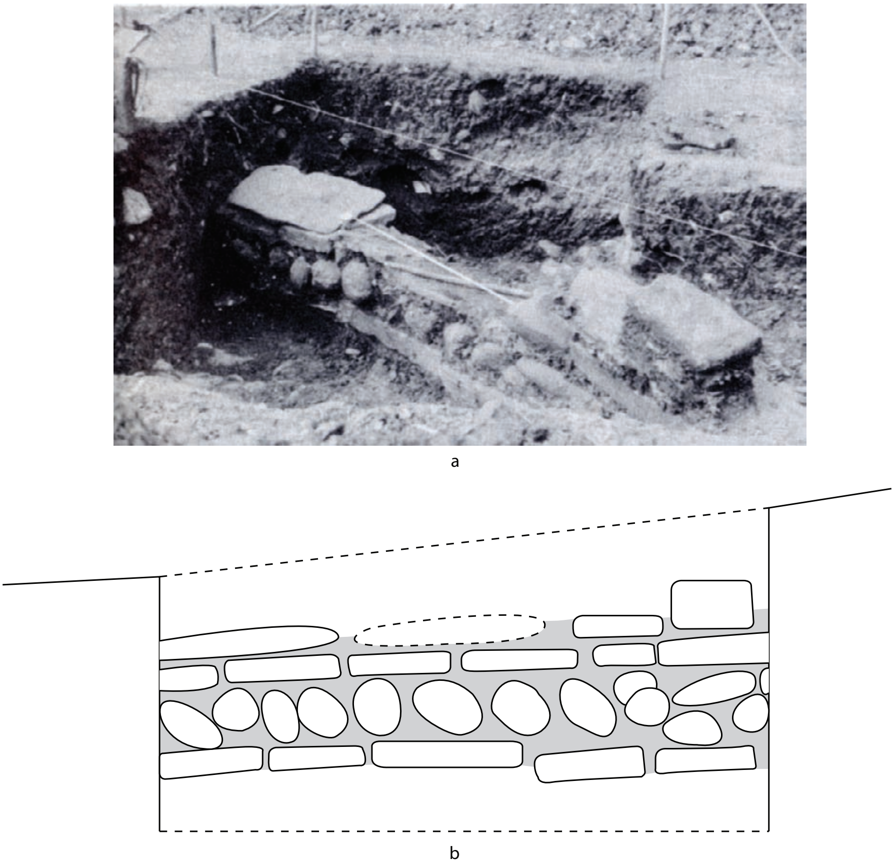
Evidence that Chiapa de Corzo was the capital of an ancient kingdom includes the size and complexity of the site (Fig. 5.13), the building histories of its principal mounds, the placement and contents of burials and offerings, and to a lesser extent, its regional settlement pattern (Bachand and Lowe 2011; Clark and Lee 1984; Sullivan 2009). Middle Preclassic stone sculptures are not known for the site, but there are some for the Late Preclassic, including Stela 2, a monument with a long-count date of December 7, 36 BCE, the oldest attested in Mesoamerica (Coe 2005:64; Lee 1969c:105). An Olmec jade figurine head was found in the northern sector of Chiapa de Corzo, but it was stolen before it could be carefully studied (Lee 1989: fig. 9.8c, 1993; Lowe 1994: fig. 7.1; Martínez 1982[1971]; Paillés 1980: fig. 14). A small serpentine axe with an incised Olmec frontal face was found in 2008 above a large offering pit with over 100 pseudo-axes made of limestone and andesite (Bachand and Lowe 2011); these were laid out in patterns at different levels of the offering pit dug into soft bedrock. A cruciform axe cache was found at the eastern edge of Mound 11 on its east-west axis, also in a pit dug into bedrock. These La Venta-like axe offerings date at least to late Chiapa II-B times, or about 800 BCE.

Site and Kingdom History

Chiapa de Corzo was a sister city to La Venta and constructed to the same MFC plan; it expanded through time in ways similar to La Venta's growth (Clark 2001). The earliest documented mound at Chiapa de Corzo is a low, broad platform beneath Mound 36, the northernmost mound (Lowe 1962b:57–59). The pyramid erected on this basal platform reached its final 9 m height by 450 BCE and was built over an earlier pyramid dating to 700 BCE. This platform was oriented 28 degrees east of true north, an orientation followed by later buildings at the site (Sullivan 2009). Excavations did not reach sterile layers, so it was not determined whether or not there is an even earlier pyramid in Mound 36 (Lowe 1962b:58). In the MFC pattern this mound is in the same structural position as the great pyramid at La Venta, so it is interesting that Mound 36 attained most of its height 200 years after its initial construction (an observation also true of Mirador). The largest mounds at Chiapa de Corzo achieved their final size in the Francesa phase. The platform under Mound 36 dates to the Dili phase (1000–850 BCE), probably near the end, and shares the middle Olmec style of decorative stone work described for Chalcatzingo and Teopantecuanitlan in the Mexican Highlands (see Grove 1984, 1989b:143; Martínez Donjuán 1994). At Chiapa de Corzo, horizontal sandstone slabs set in black clay mortar bracket a double row of river cobbles (Lowe 1962b:57–59, fig. 37, Plate 29h); see Figure 5.14. On the south side of Mound 36, "immediately below the surface there are constructed walls made with large stone slabs up to a meter long, with other rows of horizontal slabs. Below the northern side of Mound 36 there are large terraces made of enormous stones, where we find Cotorra-phase sherds [Chiapa I-B] in the fill" (Lowe 1991:115, my translation). David Grove (1989b:144) argues that a similar architectural style is a highland Olmec characteristic that distinguishes these sites from La Venta. Had the Mound 36 wall been noticed, this argument could not have been made. The practice of making designs in walls by alternating horizontal and vertical stone slabs with cobble insets mimics the more elaborate stone facings known from early La Venta in which squared serpentine and basalt slabs were placed in alternating horizontal and vertical patterns, which also alternated with layers of clay and adobes to produce a mosaic effect (see Drucker et al. 1959: Plates 7, 10–13), a pattern that may have begun during construction phase I of Complex A, the earliest occupation of the city (see Drucker et al. 1959:31).



5.13. Map of Chiapa de Corzo, with gray coding to indicate the early mounds at the site.



5.14. Chiapa II phase stone wall at Chiapa de Corzo. A. Photograph from Lowe (1962b:Plate 29h). B. Drawing of the wall from the photograph and field description. The gray shading indicates a black clay matrix.

The MFC complex at Chiapa de Corzo comprises Mounds 11, 12, 13, 22, 36, and probably 17. Mound 36, the northern pyramid of the MFC pattern, dates to Chiapa II through IV times. On the southern end, Mounds 11 and 12 constitute an E-Group. At the time Chiapa de Corzo was excavated in the 1960s, Mound 11 supported a municipal water tank and could not be excavated, but investigations in its flanking, complementary structure, Mound 12, uncovered a 3.5 m high platform that dates to Chiapa III times (Mason 1960a:2–3). The length of this early structure has not been determined. Recent explorations of Mound 11 excavated from the summit all the way through the mound down to bedrock and found 20 construction episodes. The earliest platform was 4 m high and was built during the Dili or Chiapa II-A phase (Lynneth Lowe, pers. comm. 2012). The large offering pit found on the eastern edge of Mound 11 dates to about 750 BCE (Bachand and Lowe 2011:81) and represents a clear link to La Venta patterns of axe caches. The cruciform offering of jade axes just in front of Mound 11 must date at least to Chiapa II-B times around 800 BCE. These excavations securely date the construction of the E-Group at Chiapa de Corzo to before 850 BCE based on ceramic associations. Radiocarbon samples have not been processed.

Mound 17 to the north was constructed in the middle of the plaza as a broad low platform in Escalera times (Lee 1969b), as were the two 100 m long, parallel low platforms extending southward from it (Lowe 1962b:56). These 1.25 m high wings of Mound 17 may have been an early ballcourt. These structures were just north and west of the broad platform at Mound 13. This latter structure has not been extensively explored so its beginning construction date has not been ascertained. One of the earlier buildings in Mound 13, dating to 700 BCE, was a stepped earthen platform 6.2 m high (Lowe and Mason 1965:212). An even earlier platform was discovered inside (Hicks and Rozaire 1960:5).

Mound 7 was built as part of the same plaza complex. In Chiapa III times this clay mound was about 1.3 m high and had steps on its western and northern sides, and perhaps on the other two sides as well. It measured at least 15 by 15 m at the base and was resurfaced four times during the Escalera phase. In the following Francesa phase, this platform was expanded and elevated to a height of 3.4 m. All these data indicate that the MFC complex was completed at Chiapa de Corzo by 700 BCE. Characteristics of site layout are compelling evidence that Chiapa de Corzo was planned, measured, and marked out by 750 BCE by engineers and builders who had precise knowledge of La Venta as it appeared at that time (Clark 2001).

The early pyramid at Mound 13, Chiapa de Corzo, lacks an obvious counterpart at La Venta. The primary, early construction of Mound 13 appears to have been a broad platform which supported at least one low mound (Mason 1960b). This platform may have been a royal compound, a function subsequently superceded by the placement of a temple mound over the early platform (Clark and Hansen 2001). At this time the royal compound may have been relocated south to Mound 7. At the start of the

Chiapa VI phase, the royal compound was moved to the palace at Mound 5 in the southern sector of the site.

Early investigations at Chiapa de Corzo emphasized site chronology and history to the detriment of its local context, an oversight rectified by Timothy Sullivan (2009). He surveyed 107 km^2 around the site and recovered information of changing settlement patterns. Given the proximity of Chiapa de Corzo to Tuxtla Gutiérrez, the modern capital and urban center of Chiapas, it is unlikely that the full settlement pattern will ever be known. I once thought the small Chiapa IV temple site at San Agustin (Navarrete 1959b), 25 km to the west, was a secondary capital to Chiapa de Corzo, but this small center is located midway between Ocozocoautla and Chiapa de Corzo and may have been independent of both of them. One high-status burial dating to Chiapa IV times was found in a special tomb at this site, so it was a first- or second-order community (Navarrete 1959b:4–5; Warren 1961b).

Sullivan estimates the population of Chiapa de Corzo and its surrounding region per phase based on the distribution of diagnostic sherds and their relative densities. Mound sites are rare in the survey region, but the variable sizes and densities of ancient occupation indicate that Chiapa de Corzo functioned as a regional center by Chiapa II times. Sullivan (2009:83) estimates the site at 71 ha with a population of about 1100 persons. The next largest site in the region had an estimated population of 270 people. The 107 km^2 survey region had an estimated 5000–5400 people; this represented a 37 percent increase from Chiapa I-B times. The earliest public architecture at Chiapa de Corzo dates to Chiapa II times. This community represented a departure from the previous period in demographic distribution, with 21 percent of the estimated population of the small survey region being at Chiapa de Corzo itself. These data indicate a large population in central Chiapas by 850 BCE, a finding in accord with more general assessments of regional population patterns described by Lowe and J. Alden Mason (1965:210) and Bruce Warren (1978:41, 198).

The Escalera phase (750–500 BCE) continued this trend. Most of the large mounds at Chiapa de Corzo were built by this time, and the center had achieved most of its present formality. The spatial arrangement of platforms around a long plaza was copied from La Venta, but with a different alignment. The main axis at Chiapa de Corzo is 28 degrees east of true north, and that at La Venta is 8 degrees west of north. Sullivan (2009:143) estimates a resident population at Chiapa de Corzo of 1450 persons and an overall size of 68 ha. This represented a 33 percent population increase. The population of the region in Chiapa III times decreased slightly to 4590 people. Probable secondary centers in the region were at Ribera Amatal and Bulmaro Abadilla. Small mounds possibly dating to Chiapa III times were found at Ribera Amatal, Rancho San Isidro, and Cupía. These observations indicate that Chiapa de Corzo was the center of at least a three-tier settlement system (Sullivan 2009:144). It remained the primary capital of its region until the Classic period.

In the Francesa phase, Chiapa de Corzo increased in size 20 percent, and the population in the region increased 8 percent (Sullivan 2009:195). It is important to point out that Sullivan's survey represents a sample of the full settlement system. The western sector is now covered over by the urban sprawl of Tuxtla Gutiérrez, but several Middle Preclassic sites are known to have existed there (Lowe 1959; Navarrete and Martínez 1961; Sorenson 1956; Warren 1978). The full regional system may have been 25 percent or more larger than Sullivan estimates. The limited data available indicate general trends through the Middle Preclassic, patterns corroborated by burial data. The southern plaza appears to have been a community cemetery in Chiapa IV times.

A larger sample of human burials is available for Chiapa de Corzo than for any of its neighbors, and these are a rich source of information for inferring social organization and history. Differences in mortuary treatments and offerings indicate the presence of hereditary chiefs or kings at Chiapa de Corzo by the beginning of Escalera times (Clark and Lee 1984). Space does not permit review of the more than 100 Preclassic burials at this site (see Agrinier 1964). Consideration of six royal burials from a longer dynasty will highlight key moments in the history of Chiapa de Corzo. The earliest elite burial from Chiapa de Corzo comes from Lee's (1969b, n.d.) two-week salvage of Mound 17, the pyramid located in the exact center of the main plaza (Fig. 5.13). Given the harried conditions under which this mound was excavated, the information available is remarkable. Mound 17 was built about 750 BCE and was expanded up until Chiapa VI times (100 BCE–100 CE).

Only one formal crypt was found in Mound 17, and it was for Burial 11, the earliest special burial at Chiapa de Corzo currently known. The crypt was lined with unworked river cobbles laid two courses high (Lee, pers.

comm. 2007), oriented roughly north-south on the site's axis, just slightly east of the axial line through the center of Mound 17. The occupant of this crypt was an adult female. Burial goods included jade jewelry, carved alabaster vessels, and ceramic vessels (Cheetham and Lee 2005: figs. 22–24; Lee 1969a: foto 9). The crypt and its stone lining and alignment remind one of burials and tombs at La Venta, especially Offering No. 5 (see Drucker et al. 1959: fig. 41). The goods found with Burial 11 reinforce this impression.

> Burial 11 was located approximately 2 m below the floor of an Escalera phase platform. This tomb, formally prepared—the only one known for this phase at the site—contained the remains of a woman at least 40 years old. This member of the elite class was placed in an extended position, head to the north...with a rich offering that included 62 jade beads and three alabaster vessels. More important for present discussion are the 10 accompanying ceramic vessels, three of which are identical to types imported from the Gulf Coast, particularly the fine graywares. Also, another four fine-paste vessels were probably imported; these seven vessels have precise counterparts at La Venta. (Cheetham and Lee 2005:291, my translation)

A large jar with wide everted rim found in the tomb is also a precise copy of La Venta vessels, or an import (Lee 1969b: foto 9; n.d.; compare to von Nagy 2003:840, fig. 6.9c). A similar pot was found in Tomb 1 of Mound 11. David Cheetham and Lee's (2005) study of Escalera phase ceramics from Chiapa de Corzo identified 90 sherds in the NWAF type collections that represent imports. Of these, one was from the Maya lowlands and the rest from the Gulf region. Most of these sherds came from the fill of Mound 17.

I have proposed in previous publications that the woman of Burial 11 was from La Venta and represented a marriage alliance between the leaders at Chiapa de Corzo with La Venta kings and the founding of a La Venta cadet royal line at Chiapa de Corzo (Clark and Pérez 1994:271; Clark and Pye 2000b:243–45). Cheetham and Lee (2005:291) concur and, based on their more thorough study of the artifacts, find more connections to La Venta. They suggest that a group of retainers accompanied this La Venta noblewoman to Chiapa de Corzo and that she and they lived on or around Mound 17. If so, she was buried beneath the floor of her own dwelling. The creation of one cadet line would not have been an isolated event in La Venta foreign policy. The Middle Preclassic sculptures at Pijijiapan on the Chiapas coast (Fig. 5.4) and Monument 21 at Chalcatzingo (Cyphers 1984: fig. 5.2), which depict elite women in elaborate dress, may indicate bride exchange and marriage alliances with La Venta's kings (Clark and Pye 2000b:245). These speculations can be tested through DNA analysis.

Another 14 burials (for the Chiapa III-V phases) were recovered from Mound 17, most of them of elite adult males and children (Lee n.d.). The second special burial interred in Mound 17 is of particular interest. It was a multiple interment with a primary adult male, about 25 years of age, and two sacrificed adults as burial offerings. These are known as Burials 6, 7, and 8 (see Fig. 5.15). The principal individual, Burial 6, was placed on his back in an extended position, with his head to the southeast. Several of his teeth had been filed, a mark of high status. His head "rested on the small of the back of Burial 8 while his legs were stretched out with the knees over the waist and chest of Burial 7" (Lee n.d.). As identified by Phillip Walker, Burial 8 is an adult male. He appears to have been thrown face down into the burial pit. Burial 7 is an adult female. These individuals were sacrificed and buried in opposite cardinal orientations. One served as a headrest and the other as a footrest for Burial 6. A similar multiple burial is known for La Libertad for the same period (see below). Both burials date to the Francesa or Chiapa IV phase. In terms of mortuary offerings, Burial 6 was the "richest" recovered at Chiapa de Corzo until 2010 (see Clark 2000a:50; Clark et al. 2000: fig. 19).

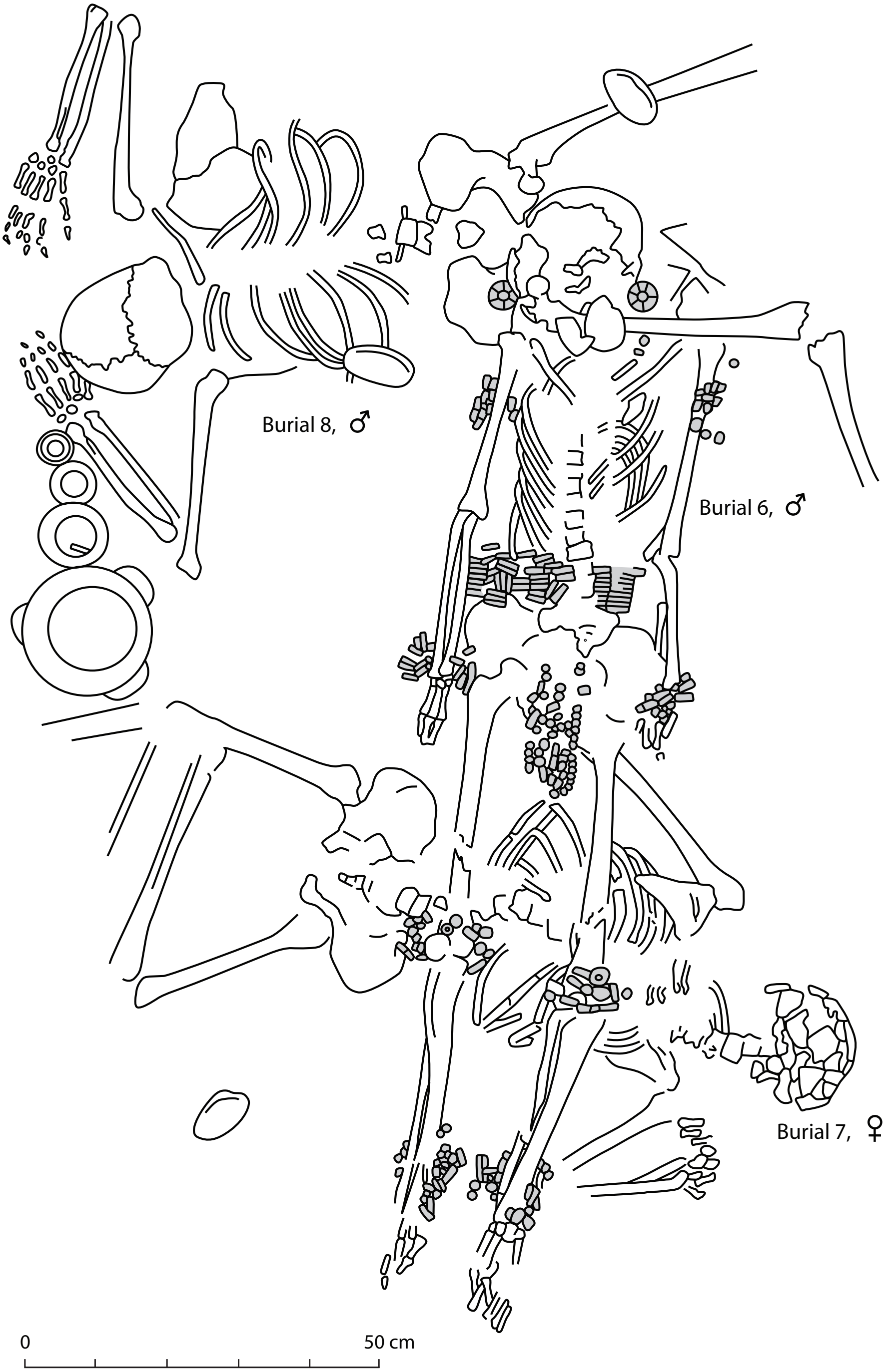
> [Burial 6] was adorned with bracelets on his wrists, biceps, knees, and ankles, all made of jade and shell disks. A small necklace of [57] pearls was around his neck while a [shell inlaid] clam shell covered his mouth. Mosaic jade earspools were on both sides of the head. A personal adornment of greater importance was a wide jade belt consisting of more than 250 tubular jade beads, with a central part of 36 long, spiral carved beads and rings…[and a sash made of 341 jade and shell beads]...Nine ceramic vessels completed the mortuary offering. (Lee 1969b:19, 21, my translation; other details from Lee 1969a)

The principal individual also had two jade and pearl bracelets and three fresh water clam shells (Lee, pers. comm.). One remarkable thing about this burial is that it was not placed in a special crypt—at least not one that was recognized in the hurried salvage operation. This burial shares elements with the cist tomb burial at La Venta. The jade bead belt-and-sash is especially significant. Later burials in Mound 17 were of individuals with jade jewelry and with shells over their mouths (Lee 1969a). Burials 11 and 6 provide a picture of the early rulers at Chiapa de Corzo.

Ceramic vessels similar to those found in the cist tomb at La Venta were found in the capping levels of the massive axe offering pit at Chiapa de Corzo at the eastern foot of Mound 11 (Bachand and Lowe 2011:77). Royal burials in the mound itself appear to date to the period between the two burials (11 and 6) just described for Mound 17. Two Chiapa III phase tombs, one of a man and the other of a woman, were found side-by-side in the heart of the Mound 11 pyramid. Tomb contents are still being analyzed. They include large, square pyrite mirrors in both burials, spondylus shells over the faces that appear to have been mosaic masks, and jade bead necklaces, bracelets, anklets, kneebands, and armbands. The male in Tomb 1 was supine, with his head to the north. He had a shell bead belt and was accompanied by 16 ceramic vessels and two human sacrifices: a two-month-old baby and a young adult (Bachand and Lowe 2011:81–82). The beaded belt and paired human sacrifices were features described for Burial 6 in Mound 17 dating to the following phase. The early king in Mound 11 had multiple dental inlays of jade and pyrite. His queen, buried just outside his crypt, lacked the bead belt but, as mentioned above, had a stingray spine. No analogous item was found with the king.

Burial 4 was interred in Mound 11 in Chiapa IV times nearer to the top of the pyramid. This individual has not been exhumed, but some of his/her burial goods have. This burial is of interest for exemplifying a later elite interment in the same mound and also because of a pendant that depicts an Olmec face carved in profile (Bachand and Lowe 2011:81), thereby indicating continued ties to the Gulf coast Olmec in this phase. During the Late Preclassic and Protoclassic, the kings at Chiapa de Corzo were interred in tombs below the floor of the main temple at Mound 1 (Agrinier 1964; Lowe 1960, 1962b; Lowe and Agrinier 1960). Most were "looted" in antiquity, so only limited information is available on their occupants and offerings. The earliest of these is Tomb 7, the only one not disturbed in prehistory.

Tomb 7 was discovered in early investigations at Chiapa de Corzo and has only been described but not analyzed in any detail. The tomb was originally thought to date to the early Horcones phase (Agrinier and Lowe 1960:47), but this assessment was later pushed back to the end of the Gua-



5.15. Chiapa IV phase Burials 6, 7, and 8 from Mound 17 at Chiapa de Corzo.

nacaste phase (Agrinier 1964:33), or about 150 BCE. At this time a low platform existed in the Mound 1 location. Tomb 7 was cut through this platform and into the soft limestone bedrock beneath it (following information from Agrinier and Lowe 1960:47–50, figs. 47–53, Plates 24–28). The crypt for Tomb 7 was 3.25 by 1.45 m and aligned roughly north-south parallel to the site's axis but west of it. Above the bedrock, the east and west walls of the burial pit were shored up with four courses of large adobes, and the north and south ends were closed off with stone slabs. Large sandstone slabs covered the burial chamber. Some of these were carefully squared. Apparently, these sandstone slabs rested on wooden timbers for structural support. Wooden planks were also placed on the floor of the tomb perpendicular to its long axis, a practice evident in Tomb 1 of Mound 11 (Bachand and Lowe 2011:82).

The bones in Tomb 7 were poorly preserved, but the teeth indicate a young adult about 25 years old, about 1.70–1.80 m tall (Agrinier and Lowe 1960:50), and given this stature, presumably male. He was placed in the burial chamber on his back, with his head to the south, and with his hands over his pelvis (Agrinier and Lowe 1960: fig. 48). The body was surrounded by vessels on all four sides. These included 34 ceramic vessels, 1 painted gourd or wooden bowl, and 8 or more small vessels of perishable material on the south end by his head. Vessels were placed carefully in the tomb according to shape, color, and size. What the excavators found remarkable is that all 35 ceramic vessels had been imported, with most coming from the Gulf lowlands and the lowland Maya area, but also 3 bridge-spout grayware jars from the Valley of Oaxaca and 5 painted Usulutan vessels from El Salvador (see below). Almost everything in this tomb had been imported.

Most of the burial goods were vessels or items of personal adornment. The few exceptions are particularly interesting. In the northwest corner of the crypt at the feet of the burial were found two stemmed chert macroblade spearpoints from Colha, Belize, and an equally long obsidian macroblade from El Chayal, Guatemala. These were placed in a large pot. Just to the east of these was a large sheet of mica as well as two clam shells filled with mica fragments. In a small black jar in the northeast corner of the tomb were two worked ulnas of a small mammal, and possibly an obsidian pressure blade (its location is not specified, but objects were placed in contrasting triads). These may have been bloodletters. A small rod of limestone was also found nearby.

This tomb was ignited after it was closed, so many items, such as the planks, were carbonized. Traces of leather straps were seen on the forehead of the skull, probably straps of a headdress of perishable materials. A single strand of jade beads encircled the neck, and a pair of elaborate composite earspools flanked the head. These consisted of jade earspools, amber cylinders (cautiously called "resin" in the descriptions), and a large cross-shaped piece of shell. Four small tear-shaped pieces of mother-of-pearl were found by the face, as were 10 small smooth pebbles. I think these pebbles may have been part of a rattle. To complete the assembly, a large sea shell was placed over the mouth of the buried individual, a practice seen for Burial 6 of Mound 17 and in Tomb 1 of Mound 11. All burials were supine and oriented north-south. The burial in Tomb 7 had many fewer jade ornaments than were placed in Tomb 1 or with Burial 6, and there were no sacrificial victims included in his tomb, but an infant (Burial 24) may have been placed above the tomb (Agrinier 1964:72). "This may represent a dedicatory sacrifice connected with Tomb 7" (Agrinier and Lowe 1960:17).

> On the basis of the foreign pottery, it might be conjectured that the offerings were sent to a famous personage, priest or ruler, from the widely separated source areas in Oaxaca, Veracruz, El Salvador and Guatemala (Lowe and Agrinier 1960:49). But since there was no clustering of the objects in the tomb according to their source area, it seems much more likely that purely luxury goods already imported were placed with a highly honored personage as tribute or for his use in an afterlife. As with burial vessels, these probably contained food and drink, a postulate supported by the apparent presence of a zapote-like fruit in the offerings. The three chalcedony [chert] and obsidian spearheads were offered inside vessels and without shafts, suggesting their inclusion as wealth symbols rather than for their utility.

> The construction of Tomb 7, the placement of its occupant and offerings, and the apparently immediate construction of a stone-walled platform over it afford the first sure indication that we have of an elaborate architecturally related ceremonial funeral at Chiapa de Corzo. (Lowe 1964:72)

Of special interest is the compelling evidence that the exact placement of Tomb 7 was remembered and commemorated through different remodeling of the structures in Mound 1 during the Horcones phase. Lowe and Agrinier (1960) described a possible offering placed above the tomb and subsequent removal of the offering, and construction of a small stone and plaster platform or altar above this spot. All that remained of these activities in the two intrusive pits was the scapula of a giant tortoise (Lowe and Agrinier 1960: Plate 24c). Four royal tombs were placed in the top of Mound 1 during the Chiapa VI phase. None was on the axial line, and each was "looted" one or more times in prehistory. I think some of these tomb reopenings could have been by descendants of the deceased who removed valuable heirlooms and other memorabilia, including human bone (Clark and Colman 2013). The six burials discussed here reveal the continuity of elite interments at Chiapa de Corzo from 750 BCE to 100 CE. For the main plot of the Chiapa de Corzo story, it is of interest that the earliest elite burial known for the site was a female—the likely founder of the Chiapa de Corzo dynasty. Burial practices and mortuary offerings associate her with La Venta.

Foreign Relations

Whether or not my speculations about Chiapa de Corzo's queen mother and subsequent kings prove correct, the Chiapa de Corzo data for the early Middle Preclassic show exceptionally strong ties to the La Venta kingdom in terms of ceramic vessel types and forms, hand-modeled figurines, site layouts, massive offerings of pseudo-axes, and incised iconography on cached objects. The absence of carved stone monuments at Chiapa de Corzo is a remarkable difference that must have been intentional, meaningful, and significant. This absence may signal Chiapa de Corzo's secondary status and dependency on La Venta. The few busted stelae fragments found at Chiapa de Corzo (Lee 1969c:105–9) date to the Chiapa V or VI phases and postdate La Venta's demise. This was the period of the strongest Maya influence in central Chiapas, as also recognized for San Isidro, Ocozocoautla, and Mirador (Lowe and Mason 1965:217).

The best evidence for shifting foreign relations comes from obsidian, pottery, burial practices, and architecture. Not much obsidian is available from dated contexts at Chiapa de Corzo. Most of it came from two sources in highland Guatemala. During the Middle Preclassic, obsidian arrived as preformed blade cores from San Martin Jilotepeque, a source located near

Chimaltenango (Clark 1988; Clark and Lee 2007; Nelson and Clark 1998). These cores were broken down into fine blades locally (Clark 1987). During the Late Preclassic and Protoclassic periods (Chiapa V-VI), most obsidian came from El Chayal, a source located 30 km east of Kaminaljuyu and presumably under the loose control of the state society there (Clark and Lee 2007). Obsidian was imported into central Chiapas as ready-made fine blades. The increased importance of El Chayal blades in Chiapas beginning about 300 BCE corresponds to a lowland Maya intrusion and occupation in the Upper Grijalva River valley (Bryant and Clark 1983, 2005b; Clark and Lee 2007; Clark et al. 2005), as well as the mayanization of Chiapa de Corzo (Lowe 1995).

Changes in pottery styles corroborate the noted shifts in obsidian trade. Ceramic wares during the Chiapa II phase were a clear continuation from the tecomate and gray plate tradition of the preceding phase. The Chiapa III phase witnessed abrupt changes all across Chiapas (Brockington 1967:67; Warren 1978). This era of city building in Chiapas is marked by different ceramic wares and forms that appear inspired by earlier ceramic vessels from the Maya lowlands. The diagnostic ceramics of Chiapas in Chiapa III times were slipped, waxy orange-resist wares, black and brown burnished monochromes, and a shift to plain, necked jars instead of tecomates. There was also a change in figurine styles and other new vessel forms, such as double-chamber whistling pots, chamferred cylinders, and cuspidor-shaped bowls. This era also saw the first ballcourts constructed in central Chiapas (at Finca Acapulco, San Mateo, and Vergel upriver from Chiapa de Corzo in the Acala region). These changes were so extensive and pervasive that Warren (1978:45) argues they represent a new group of people, perhaps from the Gulf coast. Most imported pottery found at Chiapa de Corzo for this era is fine-paste black and white pottery from either Tres Zapotes or La Venta, an observation made by Anna Shepherd to Warren in 1958 (1978:60) and more recently corroborated by Cheetham and Lee (2005). These differences in pottery usage indicate important changes beginning about 750 BCE, but wholesale migration cannot account for them. Central Chiapas had more population in Chiapa II times than is known for any other region of Mesoamerica (see Sullivan 2009). These people did not leave, so the dramatic changes in cooking and serving pots are probably due to other processes by which the local Chiapas population adopted foreign styles and made them their own.

Lowe (1977, 1978, 2007) interprets the changes in ceramic inventories at the beginning of the Chiapa III phase as evidence of a stable local population of Mixe-Zoques that adopted new forms and styles of vessels—both utilitarian and service wares. The distribution of orange, cloudy-resist pottery across Chiapas and into the Isthmus of Tehuantepec and Tres Zapotes was the key marker of Mixe-Zoque identity (Lowe 1977). The irony of Lowe's proposal—and one that continues to this day—is that this marker of Mixe-Zoque identity was adopted and adapted from eastern Maya neighbors.

Ceramic complexes in Chiapa IV times were a clear continuation of the monochromes adopted earlier, and also clearly similar to Mamom pottery in the Maya lowlands. The Chiapa IV ceramic sphere represented an era of great uniformity in ceramics in Chiapas (Miller et al. 2005:263; Warren 1978:54). The main diagnostics were slipped, highly burnished red monochromes and the popularity of flat-bottomed plates with wide everted rims. This distribution "represents the zenith of Zoquean cultural developments (Lowe 1977:226–27). This cultural florescence, in a period of pre-Maya dominance, was perhaps also the time when Zoquean influence was felt the most strongly in adjacent areas" (Miller et al. 2005:263). "The little evidence for trade from Francesa phase areas indicates a changing pattern of external contacts. The earlier Escalera phase had pottery traded in from the Olmec area of southern Veracruz and Western Tabasco, but the only identified trade items in the Francesa phase seem to be from the Oaxaca Valley" (Warren 1978:54).

The story of the following Guanacaste phase (300–100 BCE) in Chiapa de Corzo is of particular interest because it represents the post–La Venta era in Mesoamerica. Sullivan (2009:197) estimates a reduction in the size of Chiapa de Corzo to 61 ha. To judge from the mortuary offerings in Tomb 7 at Chiapa de Corzo, it was a time of heightened international trade and commerce. One of the remarkable changes was the cessation of the manufacture and use of human figurines, a pattern shared with lowland Maya societies at that time.

> Tomb 7 in Mound 1...had 34 ceramic offerings. Several of the tomb's bridged-spout face-necked jars (Cuilapa Slipped group) were brought in from the Oaxaca area. Other large red slipped florero-shaped vessels (Sierra Slipped group) were from somewhere in the Highlands [sic] of Guatemala or adjacent areas, some Usulutan (Sartenejo Slipped group)

> from El Salvador and still other vessels were from southern Veracruz (Cueva Grande Slipped group). All of these vessels were traded in from distant regions and none were of the local ceramic tradition at Chiapa de Corzo. In the case of the Tomb 7 burial we have evidence of a very important person being honored at his death with elaborate sophisticated pottery transported from a radius of some 600 miles. (Warren 1978:59)

Ceramic modes and styles paralleled those of Chicanel pottery in the Maya lowlands, and some trade wares are apparent—including those in Tomb 7 (see Lowe 1995) that Warren misattributed to the highlands.

The importation of pottery from many distant neighboring regions continued at Chiapa de Corzo through the Horcones or Chiapa VI phase. There was also pervasive experimentation locally in forms and decorations. Warren (1978:65) sees this phase as the climax of Chiapa de Corzo, and he estimates that the site covered over 3 km^2 and had 7000 inhabitants (1978:199). Sullivan (2009:199) infers the opposite pattern. He estimates the site was 56 ha in extent and housed 1450 people, as people left the center for the countryside. The demographic trend thus represented a further reduction in the size of this center. Chiapa de Corzo lost population at the same time as the number of inhabitants in its hinterland increased. This era ended in the general destruction of major buildings at Chiapa de Corzo and a pervasive shift in cultural practices. The palace at Mound 5, erected at the beginning of this phase, was burned. Architectural styles, pottery traditions, and burial practices were terminated (Warren 1978:66). I suspect the carved stelae at Chiapa de Corzo were also broken at this time and the royal tombs in Mound 1 looted. Agrinier and Lowe (1960:39) place the looting of Tomb 1 at the beginning of the Chiapa VII phase. During this Istmo phase, those who remained at Chiapa de Corzo went back to making and using white-rimmed black pottery and became closely and permanently affiliated with the Zoques of western Chiapas. They distanced themselves from any Maya connections. These changes in the Protoclassic period are important because they shed light on the earlier changes at the beginning of the Late Preclassic.

During Guanacaste times (300–100 BCE), Chiapa de Corzo underwent mayanization, as best seen in the distribution of imported Maya pottery. These special wares were mostly for elite usage (Lowe 1977:230; 1995), perhaps overt symbols of paraded identity. There was clear continuity in the local population, however, and utilitarian wares remained those of long tradition. Only traditional Zoque pottery was interred with commoners as mortuary offerings (Lowe 1977:230; 1995:329). The kings buried in the newly constructed Mound 1 were accompanied by elaborate imported pottery (Lowe 1995:324). Lowe (1977:230; 1995:329) argues that the use of imported lowland Maya pots ceased at the beginning of the Horcones phase. During Chiapa VI times,

> the previously abundant Chicanel-like types are notably absent. This pattern is characteristic for the length of the Chiapa VI occupation during which the rudimentary Maya modes are mostly lacking in the five tomb offerings and many dedicatory caches and ceremonial dumps of the period found at Chiapa de Corzo. Chiapa VI seems to have had its closest affiliations with the Arenal phase of sites such as Kaminaljuyu in the highlands of Guatemala, but both its architecture and its ceramics show local development or manufacture with the exception of certain finer vessels which appear to be imports from southern Veracruz, Oaxaca, and El Salvador. (Lowe and Mason 1965:218)

Chiapa de Corzo experienced a renaissance of sorts in Chiapa VI times as old clay and adobe brick platforms were covered over with veneers of cut limestone blocks and then with red-painted stucco (Lowe 1960:6; Warren 1978). A new palace was constructed at Mound 5 in the south plaza of Chiapa de Corzo at this time to accompany the temple at Mound 1; both appear inspired by lowland Maya prototypes. This Maya influence was rather short-lived and ended about 100 CE.

> When we look at the ceramic vessels with Guanacaste phase [Chiapa V] burials of commoners at Chiapa de Corzo (Agrinier 1964: figs. 57–66), we see the general absence of Chicanel ceramics. And, if we examine the vessels of the Istmo phase [Chiapa VII] burials of the same site (Agrinier 1964: figs. 68–117) we see that the differences in ceramics are even more marked…The contents of two Guanacaste phase tombs…included a good percentage of vessel forms and slips typical of Chicanel ceramics (Lowe and Agrinier 1960: fig. 53, plates 27b-h, q, s, 28a-c, I; Lowe 1962b: fig. 22a-g). And in a similar manner, we see three Sierra Red floreros…in the great tomb of Burial 11 of the Guañoma phase at

> San Isidro…Definitely, imported Maya ceramics were luxury wares in western Chiapas and were not used—or accessible—for everyday uses. (Lowe 1999:124, my translation)

I, along with Richard Hansen and Tomás Pérez, have suggested (Clark et al. 2000; also, Clark and Hansen 2001) that Late Preclassic kings at Chiapa de Corzo (beginning in Chiapa V times) were Maya regents affiliated and subject to those at El Mirador. Gareth Lowe (pers. comm., 1989) believed there was a lowland Maya enclave at Chiapa de Corzo residing at Mound 3 just west of the temple at Mound 1 (see Lowe 1989a; 1995). Chiapa de Corzo's Maya interlude came to an end by 100 CE when the palace at Mound 5 was burned and torn down and its inhabitants presumably killed or run out of town. These are interpretations that will benefit from DNA and isotopic analyses of human remains to determine genetic relationships and possible movements of nobles between kingdoms. The larger point is that Chiapa de Corzo during the Late Preclassic cast off its Olmec ways and adopted Maya ones. If nothing else, these shifts in vogue practices and symbols indicate changes in the balance of power and global politics. Burial practices evident at Chiapa de Corzo for this era clearly show that the resident population at Chiapa de Corzo remained the same, with the major changes being confined to the governing elites.

This era of Chiapa de Corzo's history carries us beyond the Late Preclassic transformation of principal concern, but this longer trajectory indicates that the residents of Chiapa de Corzo adopted trappings of Maya identity, both lowland and highland in turn, at the beginning of the Late Preclassic (300–200 BCE) only to discard them three or four centuries later. There is much to do here. Lowe discusses the different uses of pottery in mortuary ritual rather than that in everyday use, with the implication being that elites had exclusive assess to these symbols. Consideration of everyday practices suggests that commoners as well as elites were using Maya pottery, so a critical distinction may have been between imported pots and local copies of foreign wares. Sullivan's (2009) reconnaissance indicates the wide-spread use of Maya-like ceramics at Chiapa de Corzo and in the hinterland, so Maya-style pottery was in common use in domestic settings—but not as mortuary offerings. This pattern of selective use of imported Maya pots and locally made Maya-style vessels suggests its use in signaling identity and cultural practices and, most importantly, some long-lived tensions in the identities of commoners and elites at Chiapa de Corzo that led to a return to traditional Zoque values and material symbols about 100 CE. This coincided with the collapse of the El Mirador state in the Peten and Kaminaljuyu in the highlands (Clark et al. 2000) and presumably with the loss of foreign muscle to support the kings at Chiapa de Corzo. The rapidity of this change, and the signal reversals in domestic symbolism that accompanied it, indicate that the base population at Chiapa de Corzo during the Late Preclassic and Protoclassic had maintained its Zoque identity all along. If so, the major changes at the end of the Middle Preclassic concerned more the trappings of rulership and its overt identity rather than changes in the base population. The destruction of the few stone monuments at Chiapa de Corzo may have been part of the repudiation of foreign kings.

FINCA ACAPULCO, CHIAPAS

Finca Acapulco is located about 100 km from Chiapa de Corzo following the twists and turns of the Grijalva upriver. In Lowe's (1959:42) original survey, this site was designated as Buenos Aires of the Acala subregion. As with San Isidro, Finca Acapulco is now buried beneath the waters of the Grijalva River. Limited information was obtained during a three-month salvage operation there in 1971 as part of the Angostura Project, 1970–74 (Gussinyer 1972; Martínez Muriel and Navarrete 1978).

> [Finca Acapulco was] very near the Grijalva River but high enough above it to be free of flooding. The zone consisted of horizontal layers of almost level limestone bedrock, with a submerged layer of unembedded old river stones eroding out below the riverbed itself, accessible at low water. There is little doubt that this locality was chosen for its ability to sustain a community of high strategic value rather than a center for agricultural pursuits (recent cultivation was largely limited to the Prehispanic mounds themselves or to pockets of soil forming around their bases). (Lowe 2007:89)

Finca Acapulco is located about midway between the large centers of Chiapa de Corzo and La Libertad. This latter site lies near the headwaters of the Grijalva at the base of the Cuchumatan Mountains of Guatemala

(Fig. 5.1). Finca Acapulco was built as a pyramid center before either of its neighbors. It was the largest Preclassic site in its region and the earliest city in central Chiapas. It was also the first city to be abandoned, an event that occurred by 500 BCE (Lowe 2007:89). "The site is an extensive one consisting principally of many stone-bordered platform mounds, some long and rectangular, others smaller and squarish, with several taller pyramidal mounds with complex adjoining platform features" (Lowe 1959:42). Finca Acapulco appears to have been the primary capital of three closely spaced centers and other sites in the center of the Upper Grijalva River valley (Fig. 5.16). Each had broad platforms and an earthen ballcourt that date to Chiapa III times (Con Uribe 1976:176; Gussinyer 1972:10; Lowe 1977:226; Martínez Muriel and Navarrete 1978:234). The mounds of the E-Group were also tested (see Lowe 1977:225, fig. 9.4 for the location of excavations) and dated to Chiapa II-III times. Based on size and architectural elaboration, Finca Acapulco with its more than 50 mounds was the primary center and San Mateo and Vergel were secondary centers. These latter two sites had ballcourts but not the full MFC complex. The ballcourt at Vergel was of the same proportions, size, and construction as that at Finca Acapulco (Gussinyer 1972:10). The San Mateo ballcourt was smaller. The long mounds at Chiapa de Corzo south of Mound 17 may have been a ballcourt. San Isidro probably also had a ballcourt in Chiapa III times (Lowe 1999:113), and La Libertad definitely did (Lowe 1977). These ballcourts were placed in different locations at all these sites and were not part of the same MFC standard arrangement.

The limited salvage work at Finca Acapulco has never been reported. Lowe was unable to finish his planned synthesis of the Chiapas Middle Preclassic, but he drew attention to Finca Acapulco in all his later works. In his fullest assessment, he described the site as follows:

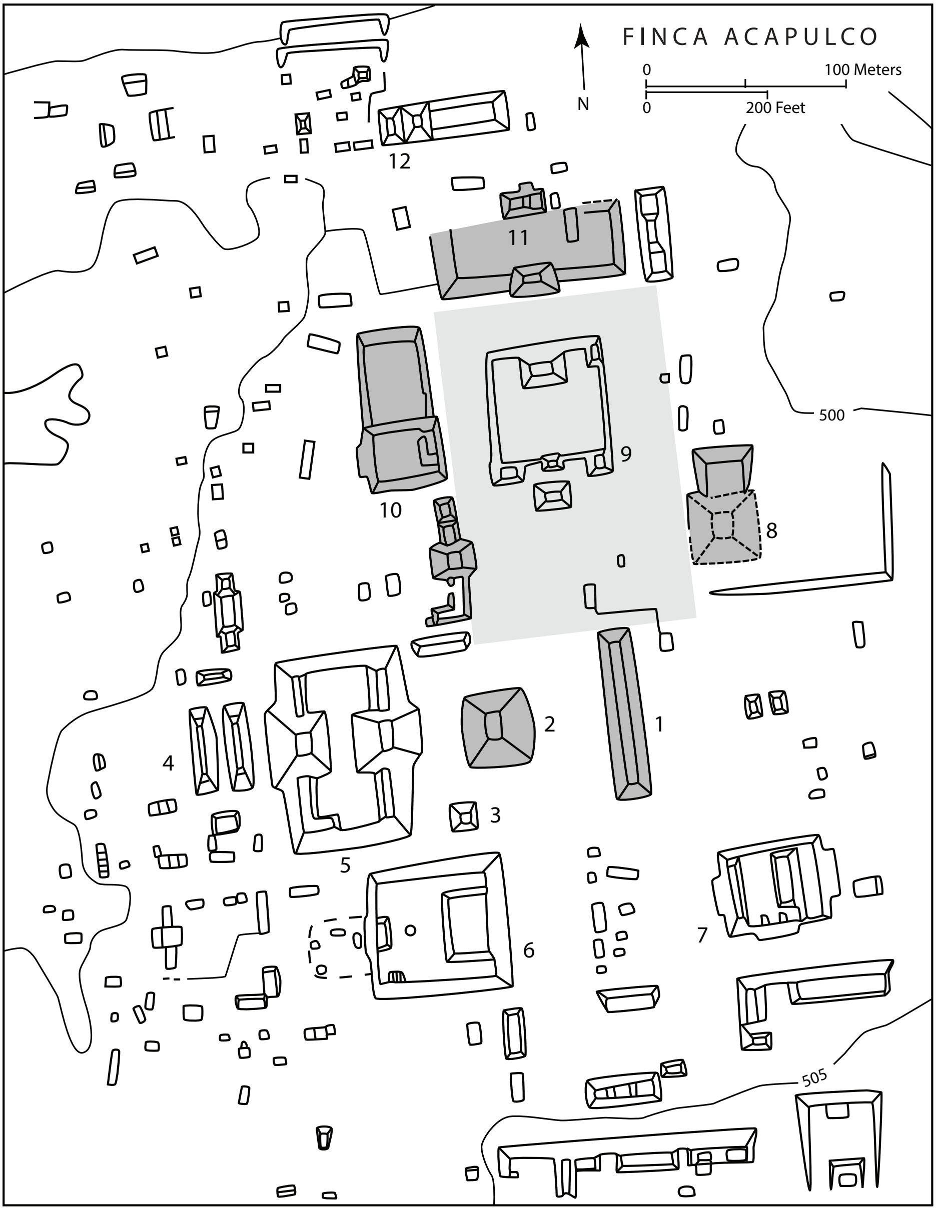
> Finca Acapulco was without doubt the best example known of a Middle Preclassic city of the Escalera horizon [Chiapa III]. It is clear that it has the basic pattern of a large mound, pyramid, and large and wide platforms in perfect order. It also had a ballcourt. A burial with an offering of a polished orange plate and a jade axe were found ["at the foot of a pyramid"; Lowe 1991:115; illustrated in Gussinyer 1972:13]. Much could be said of the planning of this regional center of first order and the possible reasons for its early abandonment [by 500 BCE]. The

> mounds were constructed with large quantities of fill that contained Early Preclassic and early Middle Preclassic ceramics, but polished orange ceramics [Chiapa III] constitute between 10 to 20 percent of all sherds. Salvage of the site was undertaken by the New World Archaeological Foundation and the National Institute of Anthropology and History, but there was not time to do more than trench a few platforms. (Lowe 1989a:366, my translation)

The platforms were made of earth, or earth and rubble fill, with carefully laid stone veneers of natural stone covered with a thick layer of clay (Gussinyer 1972:8–10).

The above translation preserves a grammatical ambiguity that becomes apparent only in reading the fieldnotes. Lowe appears to claim, and actually may have done so, that a burial at Acapulco had a polished orange offering plate and an axe. These were two different deposits and events. Both were buried on the axial line of the E-Group constituted by Mounds 1 and 2 (the following observations from a report by Raziel Mora López, June 1971). Mound 1 at Acapulco, the long eastern mound of the E-Group, was about 90 m long, 15 m wide, and 2 m tall. The axial pyramid to the west across the plaza was 5.5 m high and about 20 m^2 at the base (smaller than the map in Fig. 16 implies).

Two elite burials dating to early Chiapa III times were found on the E-Group axis in front of Mound 1 (western face). Burial 1 was in very poor condition but appears to have been an extended burial, supine, oriented north-south, with the head to the south. This individual was buried with a small orange dish and a necklace of 59 mostly small jade beads of various shapes. Burial 2 was also extended north-south in a supine position, with head to the north. The trench placed along the axis of the E-Group bisected this burial, so extensions to the trench had to be made north and south to expose the head and feet. Like Burial 1, Burial 2 also had jade beads and a polished orange dish. No evidence of earspools was found with either interment. Burial 2 had a belt and bracelets of spherical green or white stone beads (information on artifacts from notes by Lynneth Lowe, March 1986). The belt had 39 beads, 26 green and 13 white. The right bracelet had 16 beads, 10 green and 6 white. The left bracelet consisted of 10 stone beads (5 green and 5 white) and a perforated shell. Two other burials with jade pendants and beads were found in Mound



5.16. Map of Finca Acapulco, with gray shading indicating the MFC arrangement.

3, just south of the E-Group. Burial 3 had a jade spoon pendant with an incised cross design.

A large greenstone axe was found at the opposite side of the plaza at the foot of Mound 2, and on the centerline. The axe measures 26.9 cm long and 9.0 cm wide and has a rounded poll like early axes. It also had an incised line, but no incised design. Perhaps an earlier incised design was erased, as was the case for a jade axe found in the massive axe offering pit at Chiapa de Corzo (see Bachand and Lowe 2011). In the same general area at the foot of Acapulco Mound 2 was found a large spherical jade bead, perhaps a separate offering. The axe likely dates to Chiapa II times, since it was found in the earlier stratum. The burials date to early Chiapa III times by logical necessity, since Acapulco was abandoned by 500 BCE. Another offering of similar date was found on top of Mound 6. It consisted of 10 jade beads, 3 tri-pointed jade spangles with multiple perforations for sewing on clothing, and 11 cut human teeth, 3 of which show evidence of dental filing. The jade spangles are similar to some from the Cist Tomb at La Venta.

A filed and inlaid human tooth was also found on the surface of Mound 1 at San Mateo (Gussinyer 1972:10), and several burials with jade beads were found in this mound, the northernmost mound at the site (information from Gareth Lowe fieldnotes, June 1971). Mound 1 was 2 m high and about 20 m^2 at the base. Burial 2 in this mound was oriented north-south, in a supine position, and with head to the north. This individual was accompanied by an impressive collection of material, including two black and one orange ceramic vessels, the long pedestal base of an incense burner (see Lowe 1989a:381, fig. 14), a small axe, a pair of earspools, and a necklace of three jade beads. Some small jade pieces were also found that may have been part of a mosaic. Most other burials at the site lacked offerings. San Mateo Burial 2 is clear evidence of an elite individual at one of Acapulco's secondary centers.

Many Chiapa III burials and offerings were also recovered in salvage operations at the companion site of El Vergel, but not a single piece of jade or greenstone was reported. An offering found at the center of the San Mateo ballcourt consisted of a small jar with a jade bead and some unidentified organic remains (Jesús Mora Echevarría, pers. comm. 2007). No offering was found in the El Vergel ballcourt excavations. Two jade Olmec figurines are known for the Acala region (Clark and Pye 2000b: fig. 1e; Lee 1989: fig. 9.8a, I).

Obsidian artifacts from the surface and from excavations reveal an interesting contrast between sites. Nearly all the obsidian found at San Mateo came from the San Martin Jilotepeque source in Guatemala, with trace amounts from El Chayal and Tajumulco (Clark, unpublished notes on the Angostura obsidian artifacts, 1987). At Finca Acapulco nearly equal amounts came from San Martin Jilotepeque (46.8%) and El Chayal (42.6%), with the rest from Tajumulco (12.6%). This is more like the pattern characteristic of the southern Soconusco (Clark et al. 1989). The distribution of obsidian at San Mateo is very much like that at La Libertad (see below). I suspect that some of the differences in sites is chronological, with Finca Acapulco having more early deposits than San Mateo. Of particular interest at both sites is the low frequency of pressure or percussion blades. Most of the obsidian artifacts are flakes. This suggests that obsidian blades did not become popular in central Chiapas until late Chiapa III times. Alternatively, people in these centers in the middle stretch of the upper Grijalva River may not have had access to obsidian blades. As discussed below, blades occur in high frequencies at La Libertad.

Part of the trouble with understanding Finca Acapulco is that it has always been seen as part of a sweeping pattern that began elsewhere rather than as a community or seat of a kingdom in its own right. Thus, it has been a footnote to the more extensive work done at Chiapa de Corzo, La Libertad, and Santa Rosa (Brockington 1967; Delgado 1965b) along the Grijalva River. The few facts available for Finca Acapulco are impressive and suggest that the standard interpretations of the Middle Preclassic horizon in Chiapas should be revised. The following observations can be reasonably established.

1. Finca Acapulco had an extensive occupation in Early Preclassic times, 1500 BCE (Lowe 2007:89).
2. This site also had a major occupation in Chiapa II times (1000–750 BCE), and many of its platforms were probably begun at this time, as known for coeval centers on the Pacific coast (Lowe 1977, 1989a, 2007).
3. Finca Acapulco achieved its final form by Chiapa III times and was abandoned during the same era, before 500 BCE (Lowe 1977:226; 1989a:366). The number of sites in the Acala region declined from the early Middle Preclassic to the Late Preclassic (Martínez Muriel 1976), perhaps reflecting population nucleation in Chiapa III times as well as site abandonment later in the same phase.

4. Finca Acapulco was the earliest and largest Middle Preclassic city in Chiapas and the premier Chiapas kingdom in its day (Fig. 5.16).
5. Finca Acapulco is the only Chiapa III center in Chiapas known to have had monumental secondary centers close to it. The secondary status of San Mateo and Vergel (usually accorded equal status to Finca Acapulco in Lowe's summaries of these sites) is signaled by their smaller size and the simplification of the MFC pattern. Instead of the full complement of buildings, these sites have plazas, E-Groups, and ballcourts. The same simplification of the MFC pattern seen at San Mateo may characterize Santa Rosa (upriver from Finca Acapulco; Brockington 1967) during the earliest part of the Chiapa III phase.
6. The affiliation of Finca Acapulco, Vergel, and San Mateo is evident in their similar ceramic inventories and by the presence of ballcourts with central stone markers and offerings (see Gussiyer 1972:10; Warren 1978:42).
7. Chiapa de Corzo and Finca Acapulco witnessed the construction of public architecture during the same period (Chiapa II-B, 850–750 BCE), but Finca Acapulco was much larger and more complex.
8. Finca Acapulco was older than the centers founded upriver. La Libertad (see below) was clearly a planned settlement, perhaps with some population from Finca Acapulco and/or Chiapa de Corzo.
9. The oldest pyramids and platforms in Chiapas are on the Pacific coast (see following sections) and in the Acala region of the Grijalva River dominated by Finca Acapulco. The mound building tradition in Chiapas spread from the coast to the Acala region, and then from there up and down the Grijalva River valley and Central Depression. This is supported by the evidence of obsidian trade. San Isidro was an exception to this historic progression.
10. Warren (1978:49) suggests that Finca Acapulco was settled by people from the Pacific coast who "may have entered the Central Depression by the same route as the later Chiapanec Indians from the Pacific coast of Chiapas crossing through the mountains near Tonala [by Tzutzuculi] to Parian and traveling down past Villa Corzo in the Frailesca." It is of interest that the few early Olmec monuments in Chiapas appear to mark these mountain passes from the coast into the interior (Figs. 5.4 and 5.11; see Clark and Pye 2000b: fig. 1). The carved Olmec monument at Padre Piedra marks the inland side of a major pass connecting the Finca Acapulco region to the Pacific coast (Green and Lowe 1967; Navarrete 1974).

11. The distribution of early stone monuments and mounds supports the idea that the Finca Acapulco kingdom was the primary development in the Chiapas interior during Chiapa II and early III times and that the others were secondary.
12. The Finca Acapulco kingdom was the first to rise and the first to fall. Its demise does not correspond to any geopolitical events known for eastern Mesoamerica at the time. (It does coincide with the founding of Monte Albán, but I do not suppose there was any direct connection.)

These observations provide a basis for better understanding events in southern Mesoamerica. Consideration of the history of Finca Acapulco within its own macro-region suggests that this kingdom may have been undone by its own local success. The leaders at Finca Acapulco either founded daughter colonies up and down the Grijalva River or supported/tolerated those who did. During the Chiapa III phase, Finca Acapulco became boxed in by kingdoms upstream and downstream; these grew and, within two centuries, choked off the original kingdom in between (a phenomenon that could also account for the fall of La Venta in its marginal geographical location). I suggest the Finca Acapulco kingdom fell victim to regional competition it helped generate, and among peoples of the same culture and language.

I have made much of the MFC complex, and given the preceding list of facts and conjectures, the configuration of this complex requires additional comment. The MFC pattern is not very clear at Finca Acapulco (Fig. 5.16); it becomes lost in the proliferation of platforms at this urban center. Chiapa de Corzo (Fig. 5.13) and La Venta (Fig. 5.3) share more features of site layout with each other than either does with Finca Acapulco. It is possible that Finca Acapulco was established as a regional center with monumental buildings before either of these other centers. It certainly had a deeper and more continuous history. Lowe (2007:89) argues that Finca Acapulco was established to control trade and was thus built in a place with relatively poor agricultural potential. If superior control points were subsequently established up- and downriver, this new distribution of population could have led to instability in the Finca Acapulco kingdom.

The early history of Chiapa de Corzo could relate to its own marginal position in central Chiapas during Chiapa II times (Warren 1978). Both geographically and geopolitically, the Finca Acapulco kingdom was more central, developed, complex, and powerful than the kingdoms at Chiapa de

Corzo. This uneven development may have stimulated some of the events listed above for the leaders of Chiapa de Corzo during Chiapa II times. Consummating an alliance with the royal house of La Venta, and building a version of this coastal sacred center at Chiapa de Corzo to seal the deal, could have been an easy ticket to change the balance of power along the Grijalva River. I think this is what happened and that the Finca Acapulco kingdom lost its cachet within the region and was deliberately marginalized. Part of this involved founding and building a center upriver from the Finca Acapulco kingdom, and this was done with the founding of La Libertad about 700–650 BCE. The layout of La Libertad appears to have been patterned more after Chiapa de Corzo/La Venta than after Finca Acapulco.

These are interregional connections for future investigation. As pointed out, San Isidro is a surprising exception to the MFC pattern. I proposed one reason for the differences of configuration between San Isidro and La Venta, but a more obvious one may be that San Isidro was older than La Venta and already established. The similarities in site layouts seen among Chiapas centers must have been time sensitive. The spread of the MFC complex depended on two conditions that need not have applied in all cases. First, there had to be a pattern to copy—the La Venta pattern had to be available for emulation. If the La Venta plan developed through time before coalescing (cf. Gillespie 2008), early emulation could show up as a partial MFC complex. The second condition would have been the desire to emulate features of a foreign kingdom. The people of San Isidro clearly adopted cultural practices seen at La Venta and early Olmec centers in Olman, but they did not build their center to mimic that at La Venta. Perhaps this is because they were building San Isidro before La Venta was completed. Finca Acapulco could have been another case of an older site being different. In contrast, the center at Tres Zapotes (see below) shows a total disregard for the MFC pattern. The Tres Zapotes case cannot be attributed to temporal priority. I suspect the Olmecs at Tres Zapotes were not interested in imitating their cousins at La Venta.

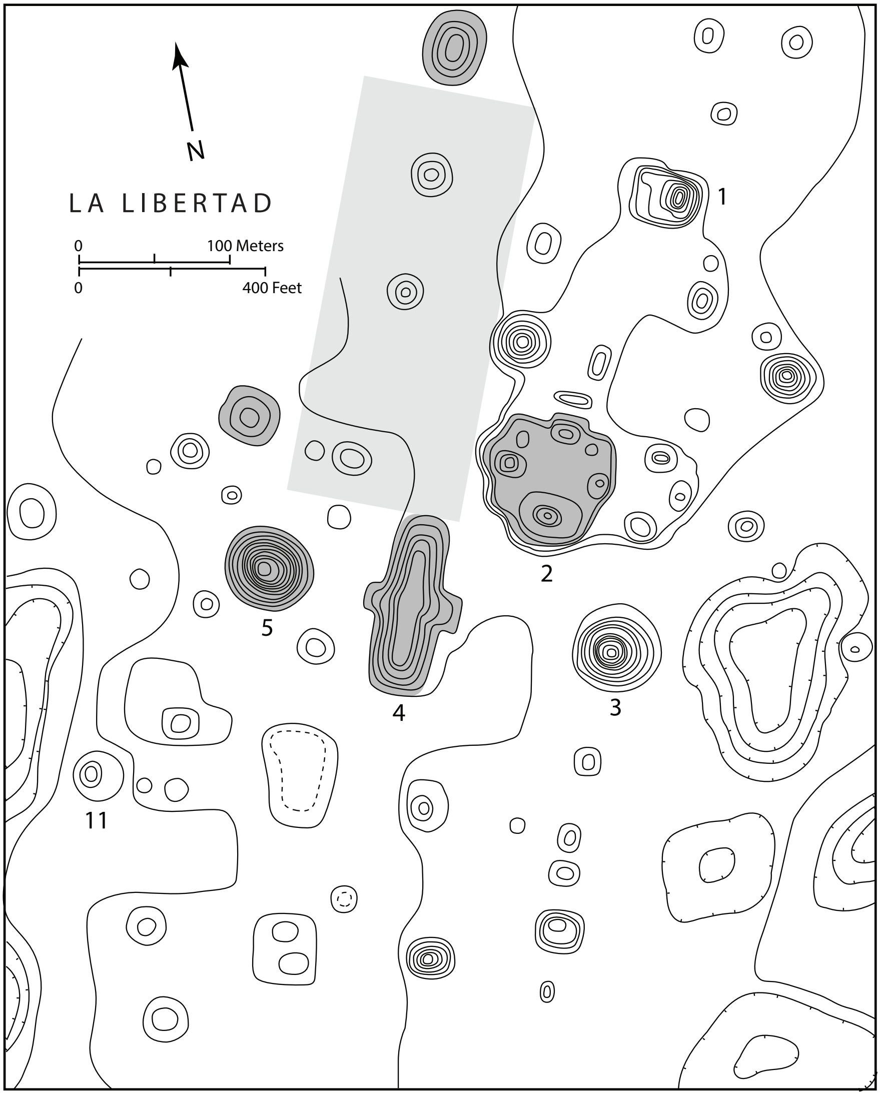
LA LIBERTAD, CHIAPAS

La Libertad was a kingdom on the edge—purposely planted in liminal space to stretch the domain of Chiapas kingdoms, most likely that of Chiapa de Corzo. La Libertad is the easternmost early pyramid center on the Grijalva

River, and it was advantageously located at the headwaters of the Grijalva River, perhaps so its rulers could regulate trade coming from the Guatemala highlands and down river (Clark 1988). La Libertad lies at the edge of the Cuchumatan Mountains and occupies a flat peninsula between four rivers. Evidence of its kingdom status comes from 56 excavations undertaken at the site in 1975–76. Its large earthen mounds were built about 700 BCE and enlarged several times in the following centuries (Fig. 5.17). The site was founded in a region sparsely populated at the time, and it was abandoned about 400–300 BCE (Clark 1988; Lowe 1977; Miller et al. 2005).

La Libertad's massive architecture spreads over 45 ha and conforms to the MFC pattern. "The site center is dominated by a long cruciform platform mound flanked by 12 m high pyramids on both the east and west sides. A multi-plaza group is located just north of the line of three mounds. The entire plaza group—divided into four or five plazas surrounded by 1.5–2.5 m high mounds—is elevated 1–2 m above the surrounding surface. This area appears to have been an elite residential area or palace... All mounds and elevated plazas were constructed with earth fill" (Miller et al. 2005:141–42). The cruciform mound and its flanking pyramids constitute the E-Group at La Libertad. These mounds were tested and found to have been mostly constructed during the Enub or Chiapa III phase and enlarged very little in the following phase. The western pyramid of the E-Group (Mound 5) was 9.5 m high at the end of the Enub phase. As at Finca Acapulco, some of these earthen platforms had a veneer of unmodified stone cobbles or cut travertine (Miller 2014). The rest of the MFC pattern at La Libertad comprises the northern pyramid, Mound 12, and the eastern acropolis.

The acropolis at La Libertad was extensively tested by Donald Miller in 1975–76 and found to have been built at the same time as the large pyramids—with substantial enlargements in Chiapa IV times. This broad, 3 m high platform supported four large and two low mounds. Stairways to the plaza were found on three sides of the acropolis. The largest structure excavated was a stone-veneer base of a building that measured 15 by 21 m (Miller 1976a, 1979, 2014), perhaps an elite residence. Two elite house mounds were excavated by Gareth Lowe and Glenna Nielson at the southern edge of the site, and these measured 24 by 18 m and 15 by 18 m (Clark 1988; Miller 2014). Significant differences among elite domestic structures were their location and relative elevation on special platforms rather than their basal dimensions. The eastern raised compounds at Chiapa de Corzo



5.17. Map of La Libertad, with gray indicating the MFC arrangement.

and La Libertad both measure about 80 m^2 at their bases and are about 3 m high, an order of magnitude smaller than the Stirling Acropolis at La Venta, but probably the same idea and for similar purposes. The noteworthy features of the Chiapas compounds are the numerous individual buildings involved. I think these were palace complexes (Clark and Hansen 2001). The good state of preservation at La Libertad provides the best evidence of the arrangement of one of these compounds.

La Libertad was the primary regional center of the Upper Grijalva River Basin during the late Middle Preclassic. Secondary and tertiary pyramid centers to this site have been tentatively identified (Clark and Lee 1984). The pyramids at these satellite centers, however, date to Chiapa IV times, and none is known for Chiapa III times. A handful of Chiapa II-B sherds have been found at La Libertad and indicate a light population there before the site was established. The temporal pattern is a common one for Chiapas in which a primary center was set up in a sparsely populated region during Chiapa II or III times, with the later establishment of secondary centers and villages as a result of natural demographic growth. La Libertad looks like a classic colony.

> The Middle Preclassic was the peak period of city-building in the upper Grijalva region. Local Zoques followed lowland Olmec norms from La Venta, Tabasco, in laying out their cities and towns... Major sites were located along the banks of principal rivers, with smaller secondary and tertiary sites, each with at least one small pyramid, located within 5 to 10 km. Unlike the previous period, the strongest ties evident in shared ceramic conventions were with the Zoques at Chiapa de Corzo. Ties with the cultures of the Soconusco were less pronounced, and the ceramic influence appears to have gone in the opposite direction...This Zoque climax in the upper Grijalva region was soon followed by their demise and abandonment of the region. They relocated down river. We find evidence of Middle Preclassic occupation all up and down the major rivers, but evidence of the Late Preclassic is hard to come by... the Zoque occupation of the upper Grijalva region paralleled that of La Venta, with both regions being abandoned about 400 to 300 BCE.... (Clark 2005b:652–53)

Reconstruction of Middle Preclassic trade patterns suggests that the main route from the Guatemala highlands to La Venta followed the central valley of Chiapas (Clark and Lee 1984). The principal capitals and way stations along this route were Kaminaljuyu, La Libertad, Santa Rosa, Finca Acapulco, Chiapa de Corzo, Ocozocoautla, San Isidro, and La Venta, with smaller centers being strategically placed between the larger ones (Fig. 5.1). Early Kaminaljuyu does not share the MFC pattern and lacks an obvious E-Group (see Michels 1979a), although it has other complexes for taking astronomical observations. The earlier center in the Valley of Guatemala, Naranjo, may have had a simple E-Group that dates to 800–600 BCE, but Naranjo lacks the other features of the MFC pattern (Arroyo 2011). It is probable that the peoples of highland Guatemala were a different cultural group than those living in the Grijalva River Basin. The best evidence of connections between these groups is obsidian and ceramic artifacts. Obsidian is more abundant at La Libertad than at any other site I have seen outside the obsidian source areas. Almost all is from the San Martin Jilotepeque source (Nelson 1988). Half of the obsidian came in as large blade cores and the other half as small spalls for making flakes (Clark 1988:13–33). Obsidian from this source reached Finca Acapulco, San Mateo, and Chiapa de Corzo. Basalt manos and metates were also imported into La Libertad from the western highlands of Guatemala, but the bulk of the grinding stones were made from materials available in the region (Clark 1988:129–32).

Pottery and figurines at La Libertad are similar to those at Chiapa de Corzo during Chiapa III times and show some divergence by Chiapa IV times (Miller 2014). In this final period of occupation, La Libertad had some ceramic vessel types similar to those at Kaminaljuyu. The "specular red-and-white bichrome Nawa type was absent at Chiapa de Corzo...[and]...appears to have been a late Middle Preclassic copy of zoned bichromes from the highlands of Guatemala and/or inspired by purple-painted whitewares from Kaminaljuyú" (Miller et al. 2005:263). A figurine in the La Libertad style has been found at Takalik Abaj in coastal Guatemala (personal observation).

The big story of the upper Grijalva region is what happened after the collapse of La Libertad about 400–300 BCE. In the ensuing Chiapa V phase, sites in the Upper Grijalva River Basin were small, few, and in defensible positions. Chicanel sherds from imported pots are evident at sites of this period, but most of the local wares were a continuation of traditional pottery (Bryant and Clark 2005a). The Chiapa V and VI complexes show the presence of lowland Maya trade wares and local copying of Maya serving vessels, especially Sierra Red bowls. With others, I have interpreted the changes in ceramic assemblages and other cultural practices as an intrusion of lowland Maya peoples into central Chiapas and the mayanization of the local population (Bryant and Clark 1983, 2005b; Clark et al. 2000). The lowland

Maya occupied the upper Grijalva region by 200 BCE. I view this change as related to the expansionist policies of the Mirador state (Clark et al. 2000).

The burials at La Libertad demonstrate the presence of rank differences and also close connections to Chiapa de Corzo.

> Several burials were exhumed from beneath the floors of the two elite housemounds. Only one burial was found in Mound 11, but 6 were discovered in Mound 9. Miller (1979) notes that this difference may in part be due to chronological differences or to different excavation strategies. All burials were extended. Modest mortuary offerings, consisting of several pots or a few jade beads, were associated with several individuals; others lacked non-perishable offerings. In contrast, sumptuous tomb burials were recovered from several of the large mounds. Two sacrificial victims accompanied one jade-laden male on his final journey. The style of this burial closely replicates that of one discovered by Lee…at Chiapa de Corzo. (Clark 1988:9)

Burial 28a at La Libertad was found in Tomb 1, 1.7 m below the surface of Mound 3 at the summit of this mound (all information from Miller 2014). This adult male was accompanied by two other adults, probably sacrificial victims, one male and the other female; limestone slabs covered all three bodies. The principal individual was lying on top of the body of Burial 28b and also had his left hand over her face. Burial goods included a large alabaster bowl with a notched medial flange (imported from highland Guatemala, see Clark 1988: fig. 76), 6 ceramic vessels, and elaborate jade and shell jewelry. Burial 28a had 2 earspools and 3 or 4 jade bead necklaces, 3 large sea shells in his headdress, a large shell pendant, a shell mosaic mask, and a special belt and sash similar to that described for Burial 6, Mound 17, at Chiapa de Corzo. The belt arrangement with Burial 28a included 26 elongated jade beads, at least 602 tiny jade beads, 695 tiny cut shell beads, 80 mini-conch shells, and at least 1,100 olivella shell beads. The similarities between the burial treatments and accoutrements of the Chiapa IV phase kings at La Libertad and Chiapa de Corzo demonstrate a close relationship between the nobility of these kingdoms, connections going back to Chiapa III times. I think the elites of La Libertad were more closely connected to those at Chiapa de Corzo than to those of other kingdoms. Another characteristic of this period was burials of high-status individuals at smaller centers such as at San Augustin, located between Chiapa de Corzo and Ocozocoautla (Navarrete 1959a), and El Achiote, near San Isidro (L. Lowe 1998). In the upper Grijalva region, a triad of elite burials was found at Santa Marta Rosario, a site less than one fifth the size of La Libertad and located about 20 km east of it (Bathgate 1980; Clark and Lee 1984: fig. 11.8).

IZAPA, CHIAPAS

Izapa is the most famous Preclassic site in Chiapas, and the most anomalous. It differs in nearly every dimension from the Zoque capitals described thus far, so I consider it of different cultural affiliation. Whether or not Izapa qualifies as a non-Mayan kingdom on the western frontier of the Maya world or was, in fact, the westernmost Maya kingdom on that frontier is a pending question. Michael Coe (2005:67–69) has consistently argued on the basis of its numerous stone monuments and their themes that Izapa was Mayan. Based on a comparative study of ceramic complexes, I proposed that the Middle Preclassic builders and occupants of Izapa were Mixe, first cousins of the Zoques (Clark 2000a; Clark and Pye 2011). Determining the ethnic affiliation of the Preclassic inhabitants of Izapa will require a detailed historical and regional analysis.

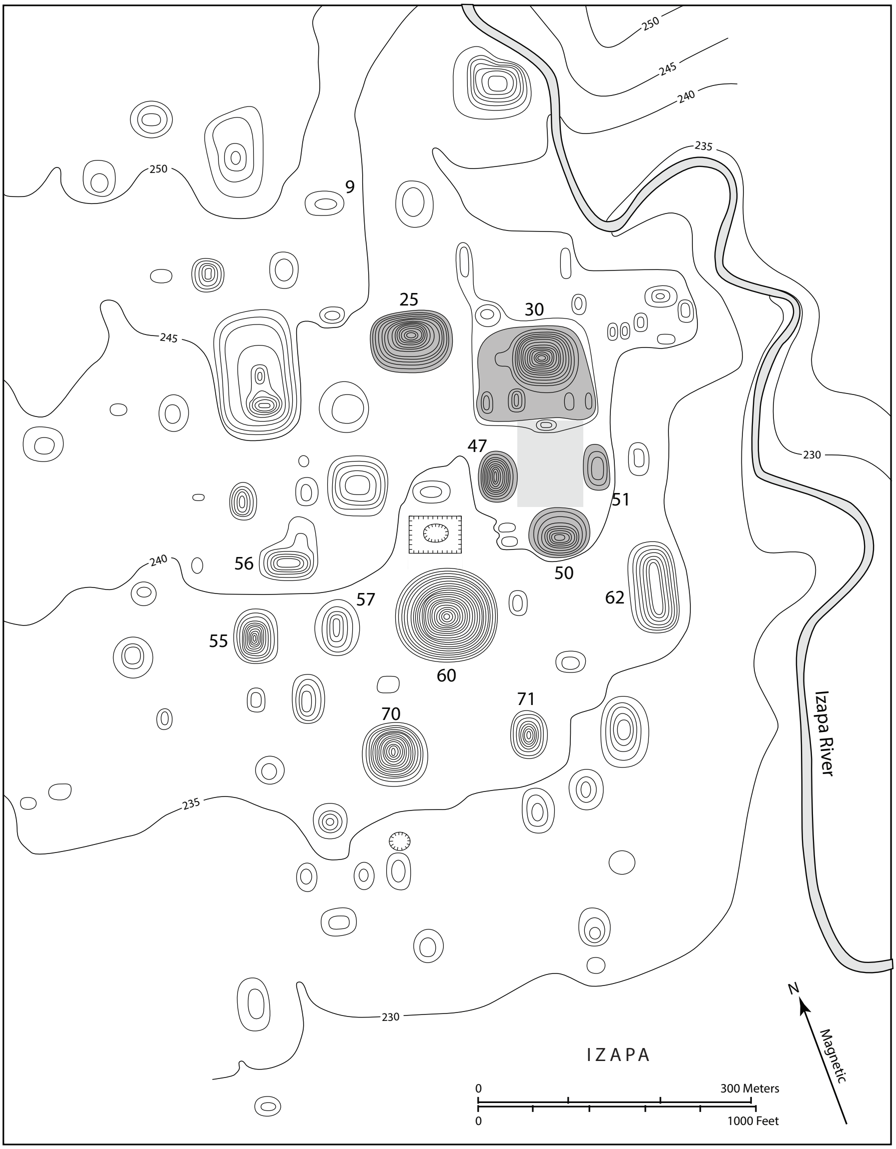
Izapa lies nearly directly south of La Libertad, 110 km away and on the other side of the Sierra Madre mountains at their widest and highest point. Izapa is situated about 240 m above sea level in the piedmont zone of the southern Soconusco in an area of evergreen tropical forest, a locale ideal for growing cacao. It is thought that cacao and other tropical products, such as bird plumes and jaguar pelts, were major exports of this capital during its heyday (Lowe et al. 1982:47). Procurement of these products for exchange may have been the reason Izapa was established in the first place.

The apogee of Izapa was in the Late Preclassic period, but its history extended another millennium in both directions to the Postclassic and Early Preclassic. The earliest sherds found at Izapa relate to those found in the Mazatán coastal region just to the west. These artifacts date to 1800 BCE and are evidence of the first sedentary occupation of the Izapa piedmont zone (Clark and Lowe 2013). At its height in the Late Preclassic, Izapa extended over 4 km^2 and had at least eight plaza groups, each surrounded on three or four sides by small pyramids. Of particular interest are the numerous stelae and altars set up along the edges of some of the larger plaza groups. Evidence of the kingdom status of Izapa during the Middle Preclassic includes its mounds, site size, monuments, offerings, and burials. Most of the monuments postdate the era of concern here, but some were carved at the end of the Middle Preclassic (Clark et al. 2010; Clark and Hodgson 2008; Ekholm 1993).

During the Middle Preclassic, Izapa was remarkable for what it was not: It was not Gulf Olmec or Chiapas Zoque; it was not like La Blanca, and it did not have a MFC complex. The dominant kingdom in the Soconusco during the early Middle Preclassic was centered at La Blanca in the outer coast of western Guatemala (Love 1991, 2002a, b, c, Chapter 7, this volume). This site was the hub of a kingdom that held sway from 1000–850 BCE. The question is whether Izapa was coeval with La Blanca and a secondary center to it. The 25 m high pyramid at La Blanca was built by 900 BCE (Blake et al. 1995:163, 180; Love 2002c:57) during the Conchas phase (Chiapa II-A). The earliest pyramid at Izapa (Mound 30) dates to 850–750 BCE (the Chiapa II-B phase). In a preliminary synthesis of Soconusco chronology, various authors pooled their radiocarbon dates. In this article, we did away with the Duende phase at Izapa and subsumed it under the Conchas D phase at La Blanca, based on observations Love and Lowe made together of the Izapa ceramic collections (Blake et al. 1995:179, n. 8). This assessment proved ill-founded, so we restored the Duende phase for Izapa and its region (Clark and Cheetham 2005) and have confirmed its content and chronology at the neighboring center of Huanacastal and related sites (see below). The Duende ceramic complex is significantly different and later than the Conchas complex at La Blanca. I have seen no evidence of a Duende-phase occupation at La Blanca (there is one at Takalik Abaj), so I doubt the La Blanca kingdom persisted much past 850 BCE, the time of the emergence of rival and flanking kingdoms at Izapa and Takalik Abaj. There was virtually no Conchas phase occupation at Izapa, so it is unlikely to have been part of the La Blanca kingdom (Clark and Lowe 2013). That La Blanca had secondary and tertiary centers with monumental architecture has been well established (Love 1991, 2002c, 2007, Chapter 7, this volume), but Izapa was not one of them. The westernmost subsidiary center of the La Blanca kingdom appears to have been Cuauhtémoc in the southeast corner of the Chiapas Pacific coast (Rosenswig 2005, 2006, 2007, 2010; La Cabaña 10 km farther west is another possibility, see Fig. 5.1). During the Duende phase the centers of power moved from the far coast to the piedmont.

The first pyramid at Izapa was constructed in Chiapa II-B times. Mound 30 at the site (see Fig. 5.18) was built and enlarged half a dozen times in this phase until by 750 BCE it was 12 m high and 45 m wide at the base (Ekholm 1969; Lowe et al. 1982:123). Lowe and others (2013) argue that Izapa extended 25 ha at this time and that the early mound complex likely included Mounds 50, 47, and 25. The Duende settlement seems "to have been concentrated upon the restricted Group B terrace overlooking the Río Izapa" (Lowe et al. 1982:127). This arrangement would have been Izapa's earliest plaza (see Fig. 5.18). Izapa was a large center or town in Chiapa III times. Pottery of this phase is found all across the central zone of the site (Ekholm 1989:335; Lowe et al. 2013; Lowe et al. 1982:127). Ironically, very little construction has been detected at Izapa for Chiapa III times beyond a few thin layers added to the Duende mound in Group B (Lowe et al. 1982:127) and a small platform under Mound 60 (Lee and Clark 2013). By Chiapa IV times, Mound 30 was 16 m high, and there were also large platforms at Mounds 9, 25, and 56. The known early mounds do not conform to the MFC layout. Izapa does not appear to have subscribed to the same architectural system as at Chiapa de Corzo, La Libertad, and La Venta. Based on site histories and localities, I think MFC sites were inhabited by Zoque speakers and that Izapa was not part of this culture. I postulate they were Mixe speakers. A branch of this language family was present in the Izapa area at the time of the Conquest (Campbell 1988:305; Coe 2005:67; Lowe et al. 1982:11).

The numerous low-relief stone carvings and altars at Izapa further distinguish it from all other Preclassic sites in Chiapas. In terms of monuments, Izapa shows more affinities with Takalik Abaj and Kaminaljuyu than to sites in central Chiapas (Clark et al. 2010). The ceramic evidence is ambiguous on the matter. The Duende complex which dates the era of pyramid building is intrusive in the Soconusco from the central Pacific coast of Guatemala (Lowe et al. 1982:123, 127). Duende pottery shares many features with the burnished brown monochrome pottery from El Balsamo (Shook and Hatch 1978). In Chiapa III times, the ceramic assemblage of Izapa changed from this thick, soft pottery to harder, fine-paste orange negative-resist wares typical of all the sites in central Chiapas (Clark and Cheetham 2005; Lowe et al. 2013; Lowe et al. 1982: figs. 7.6 and 7.7). Ceramically, Izapa was very much a participant in the Chiapas Middle Preclassic era. Ceramic figurines at Izapa for Chiapa III and IV times are more similar to those in central Chiapas than to those in the Maya region (Ekholm 1989:336). Izapa's architecture does not



5.18. Map of Izapa, with gray shading indicating the distribution of Middle Preclassic (Chiapa III and IV) pottery and early mounds, and possible early mounds.

reflect these ties, but neither does the architecture at San Isidro. It should be remembered that La Blanca provided the people of Izapa a more proximal model of impressive architecture and city planning than did La Venta.

"At the end of the Frontera phase or very early in the Guillen phase, Burial 30e-1 was placed in the Mound 30 acropolis platform, with offering vessels that indicate an alignment with Guatemala or El Salvador...the earliest jade offering known at Izapa was also in this tomb" (Lowe et al. 1982:129). At this same time there was a pronounced regionalization in ceramic complexes. The ceramic complex at Izapa diverged from those in the interior and along the Pacific coast (Lowe et al. 2013). These changes in pottery are significant because this is the phase that Lowe claims as the apogee of mound building at Izapa. "All of the Izapa plaza groups except [Group] F appear to have achieved their present proportions during the Guillen phase [Chiapa V]. It is probable that almost all of the Izapa stone monuments were carved and erected during this phase" (Lowe et al. 1982:133). It turns out that the distribution of Guillen pottery is extremely limited in its region—virtually isolated by other complexes of greater geographic range. Guillen pottery does not show up in coastal Guatemala just across the river (the Ujuxte state was the dominant power there [Love 2002b, 2007, Chapter 7, this volume]) or in the Mazatán region to the west (Clark and Cheetham 2005). In terms of its pottery preferences, Izapa looks like an enclave population by Chiapa V times. The pottery distribution pattern is the main reason I proposed Izapa was an isolated Mixe community surrounded at the time by Maya communities (Clark 2000a:52).

The picture of foreign relations for Izapa during the Late Preclassic era is counterintuitive because the Izapa art style is so pervasive. The issues cannot be resolved at the present time, but it is appropriate to remember what really is known about this kingdom. First, the Izapa art style has a label problem that rivals the Olmec's. That an art style carries this brand label is an accident of the history of archaeological investigation. It is not certain that the Izapa style began at Izapa, was developed at Izapa, or that the promulgation of the Izapa style throughout eastern Mesoamerica had anything to do with elites living at Izapa. Second, the clearest antecedents to the carved stela–altar complex seen at Izapa are in the Mexican highlands at the early Middle Preclassic sites of Teopantecuanitlan, Guerrero (Martínez Donjuán 1986, 1994, 2010), and Chalcatzingo, Morelos (Grove 1987b, 1989b, 1997, 2000b, Chapter 3, this volume). These regions appear to have had special trade connections with the Soconusco from Early Preclassic times onward (Pye and Gutiérrez 2007, 2011), so the stela-altar complex could easily have been borrowed from highlanders living to the north. Third, the era of the sculpting of Izapa stone monuments has not been established, and the original logic for their chronological placement is not compelling. Lowe acknowledged that central Izapa was well developed by Chiapa III and IV times (Lowe et al. 2013), so an argument based on the presence of plaza groups could date the Izapa monuments five centuries earlier if need be. I think Izapa's stela-altar complex began in Chiapa IV times (550–300 BCE) and was a continuation of earlier practices of carving monuments in the round (Clark and Pye 2000b: fig. 16). The earliest monument at Izapa in a structure context is Miscellaneous Monument 2 (Norman 1973: fig. 64; 1976:256–58), known locally as El León (Fig. 5.19). This monument shares similarities with monuments from Tiltepec and Tres Zapotes. My earlier estimate of 600 BCE for this sculpture was based on an erroneous assessment of the age of Tiltepec and its Olmec-like monuments. It is more likely that El León dates to 400 BCE, near the end of the Middle Preclassic period (Clark and Hodgson 2008:89; cf. Norman 1976:257; Lowe et al. 1982:8, 133). The head of a "dancing jaguar" sculpture was found in a Middle Preclassic midden and dates to about 500 BCE (Ekholm 1993), so the sculpture tradition is older at the site than the El León monument. The sculptural program at Izapa distinguished this kingdom from its Middle Preclassic contemporaries in central Chiapas and made it more akin to La Venta, Tres Zapotes, and Chalcatzingo—with an emphasis on this last kingdom (Grove 1987b, 1989b, Chapter 3, this volume).

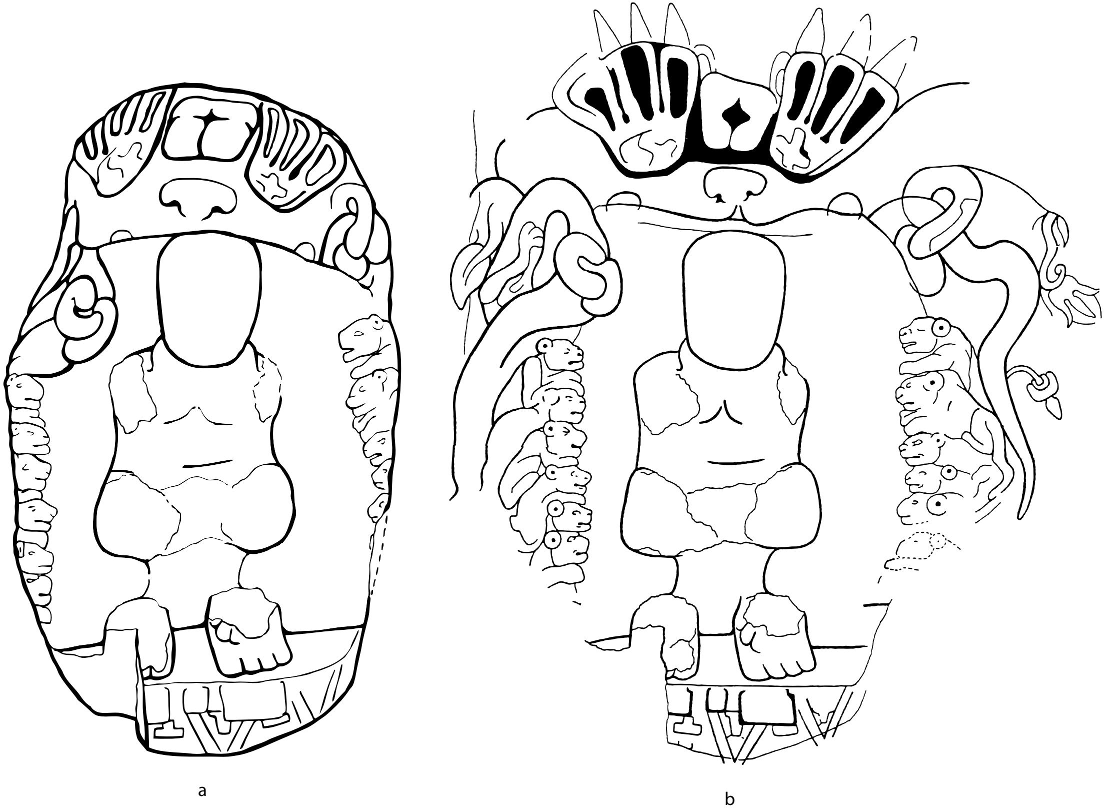
Other evidence of foreign relations is also equivocal. The ceramic history of Izapa shows growing regionalism during the Late Preclassic. Gulf coast trade wares date to Chiapa III times. During the Chiapa IV era there were fewer trade wares, and they appear to have come from the La Libertad region (Lowe et al. 2013). Figurine styles show the same trend (Ekholm 1989). Obsidian found at the site came from highland Guatemala sources, but we lack an adequate sample per phase. The data show that obsidian from the Tajumulco and San Martin Jilotepeque sources predominated in the Middle Preclassic and continued into the Protoclassic. Results from an analysis of a larger sample of Izapa obsidian negate my previous suggestion that most obsidian came from El Chayal in Protoclassic times (i.e., Clark et al. 1989: table 12.1). El Chayal obsidian is rare at Izapa (Lee and Clark 2013).

The limited burial evidence from Izapa, as noted, shows some relation to kingdoms in Guatemala and El Salvador. Because human bone does not preserve in the Izapa environment, the best traces of possible kings or leaders are the images on the numerous stelae and altars at the site. Izapa is well known for its narrative style and mythic themes. Many of the images may represent kings dressed as heros or as avian deities (Guernsey 2006). Kings dressed in bird costumes are known for La Venta (Clark 1997: fig. 2; 2004b: figs. 18.2a and 18.4a). Thus far, no evidence of burials or special tombs for kings has been found at Izapa for the Middle or Late Preclassic periods. Julia Guernsey (2006:105) makes a case for such a royal burial at Kaminaljuyu for the Late Preclassic period. The ideal of kingship and its stylistic representations were widespread, and certainly peoples of different cultures and languages participated in the same system.

HUANACASTAL, CHIAPAS

There is not much to describe about this site other than to record it for future consideration in the current lineup of Middle Preclassic kingdoms. Huanacastal is located 30 km west of Izapa on the coastal plain of the Mazatán region, on the west bank of the Coatan River and 5 km inland from the ocean (Fig. 5.1). Its peak occupation was in the Classic period, but the early stages of its largest pyramid were built in Chiapa II-B and III times. Evidence that Huanacastal was a kingdom comes from regional survey, the existence of constructed pyramids, and the presence of an early mound burial at this site. Only one test excavation has been undertaken, and this was in the footprint left by the largest pyramid which had been carted away as fill to make an elevated all-weather road to the beach. The principal mound is said to have been 20 m tall, a plausible height given the extent of its footprint. It was probably largely Protoclassic.

My excavation in the basal scar of this mound recovered evidence of its early construction sequence and also of an extended burial of an adolescent male with Olmec-style tabular-erect cranial deformation (Fig. 5.20). This burial is similar to the contemporaneous burial found at the ceremonial center of El Pajón 100 km up the coast (Lowe 1989a, 1994: fig. 7.4; Pailles 1980: figs. 54–60) and to Burial 7 of Santa Rosa along the upper Grijalva River (Brockington 1967:22; Delgado 1965b:25, 37–39). All three individuals were buried extended and face down, but there was no consistent orienta-

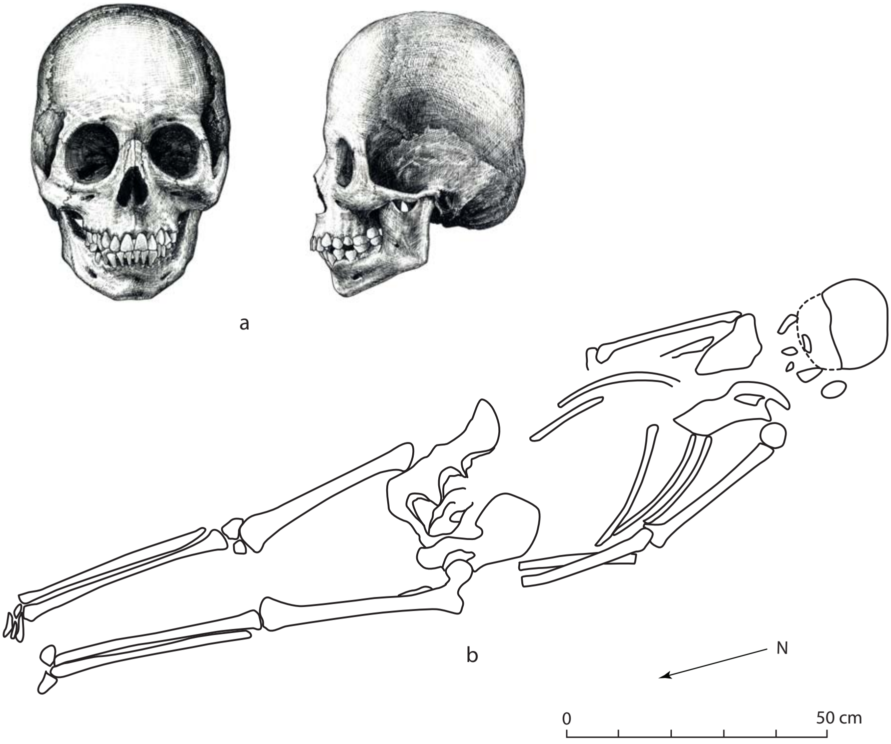


5.19. Miscellaneous Monument 2 from Izapa, the earliest stone sculpture in an archaeological context at the site. A. Frontal view of the monument. B. Roll-out view of the designs on Monument 2.

tion of these burials. The burial at Huanacastal lacked obvious mortuary goods but was buried in a low platform about 1.5 m high constructed about 900 BCE (Blake et al. 1995:13, sample B-22613). This platform was later elevated in Chiapa III times to 6 m high. It is not known how many of the other mounds at this site date to this period. Nothing approaching the MFC complex is apparent in the mounds at the site. Half a dozen other sites in the Mazatán zone have small pyramids dating to the Chiapa IV phase, and some of these would have been secondary centers. There is no evidence of E-Groups or Middle Preclassic ballcourts in this region. Surface collections of pottery indicate a strong Middle Preclassic occupation at Huanacastal, but none during the Late Preclassic. Termination at the beginning of the Late Preclassic was a fate shared by many Chiapas regional centers.

TZUTZUCULI, CHIAPAS

This 35 ha site is located on the other end of the Chiapas coast from Huanacastal and Izapa and 12 km in from the Pacific Ocean (Fig. 5.21). Andrew McDonald's 39 excavation units there in 1971 have been fully reported (McDonald 1977, 1983). Of particular interest, this is the only site in Chiapas with Middle Preclassic sculpture found in association with public architecture. Because of their setting, these monuments must date to 600–500 BCE (McDonald 1983:16). Two stone monuments flank each side of the 4 m wide southern stairway of Mound 4. The monuments adjacent to the river cobble steps of this stairway are carved in low relief; the outer flanking monuments are stones of similar shape and size but are uncarved (Fig. 5.22). The paired low-relief monuments bear a family resemblance to Olmec-style sculpture (Fig. 5.11). One represents a serpent in profile and the other a frontal view of a jaguar-like creature (McDonald 1977). The so-called jaguar face is the same as that on the celtiform stelae in front of the main pyramid at La Venta and carries a representation of the same foliated crown (cf. Fig. 5.5). The monuments at Tzutzuculi, however, are not stelae. They are freestanding boulder sculptures; the bases of these monuments rested on the plaza surface rather than needing a buried tenon for stability, as is characteristic of the stone slab stelae at La Venta. McDonald (1977) speculates that the principal idea conveyed with the placement of the stone images at Tzutzuculi on each side of the central stairway of Mound 4 is of an encircling serpent, such as seen on Olmec scepters and on some pyramids in the Classic period.



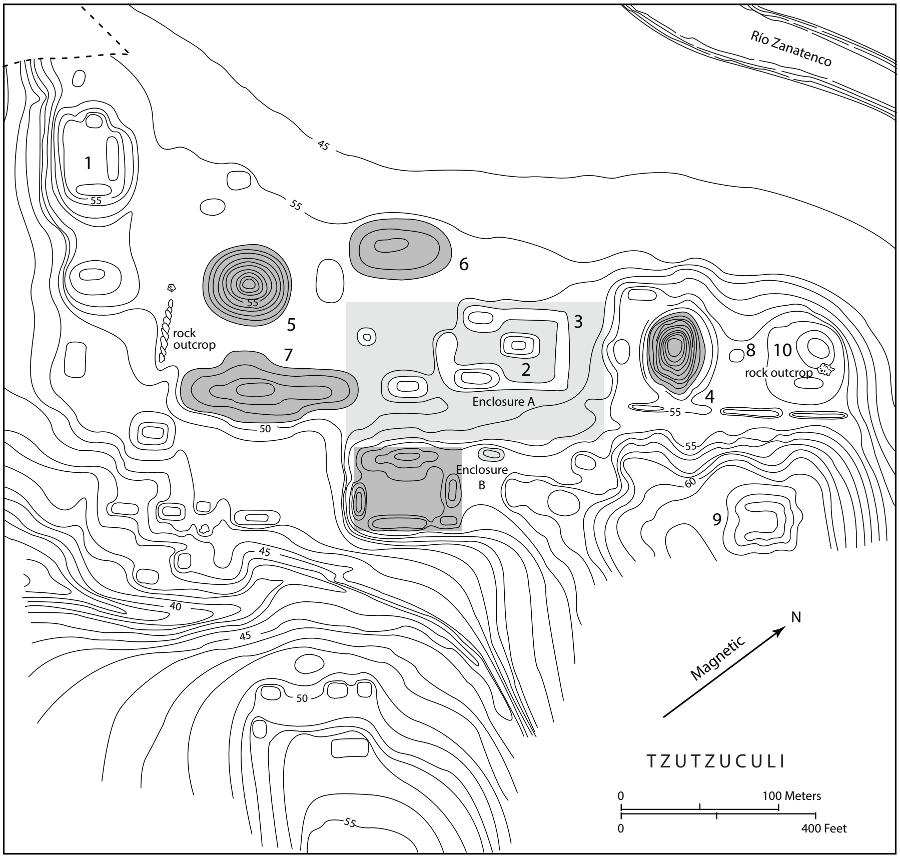
5.20. Burials from the Chiapas coast with Olmec-style cranial deformation. A. Drawing of skull from Pajón (redrawn from Pailles 1980:fig. B). Burial 1, Huanacastal, of a young male interred face down.

Evidence that Tzutzuculi was the seat of an ancient kingdom is its public architecture, the MFC complex, stone sculpture, and size and configuration of the site. No elite burials or offerings are known, but an empty stone crypt was found just west of Mound 4 that is reminiscent of the cist tomb in Complex A at La Venta (Guernsey 2006: fig. 2.25; McDonald 1977:561). The cist at Tzutzuculi was associated with Monuments 3 and 4; each of these stela shows a low-relief frontal image of an adult male with an elaborate headdress (McDonald 1983:23, 39). These two monuments were set upright on the west end of the cist, and they were placed with a plain stone altar between them (McDonald 1983:23). This cist dates to Chiapa IV times (McDonald 1983:39), but the sculptures are probably earlier and in a secondary setting (Clark and Pye 2000b: fig. 15). McDonald (1983:25) speculates that this crypt once contained a burial whose bones and offerings were removed in antiquity. Only one earspool was found on the floor of the crypt.

The hierarchical position of Tzutzuculi remains to be determined because no contemporaneous Middle Preclassic sites are known for this coastal region. The large site of Tiltepec lies just 9 km northwest of Tzutzuculi, and it has a variety of sculptures in late Olmec style and stone architecture made from granite boulders from the adjacent river (Lowe 1967, 1977:231; Martínez Espinosa 1959; Milbrath 1979; Navarrete 1959a). These two centers appear to have been sequential. The 25 mounds at Tzutzuculi are arranged in the La Venta pattern, but at 1/4 scale. In contrast, the site plan at Tiltepec bears no resemblance to this plan (see Navarrete 1959a) and dates to the Late Preclassic, beginning about 400–300 BCE. Tiltepec would have been a contemporary of the Tres Zapotes kingdom rather than of La Venta.

Tzutzuculi was built on a broad terrace on the south margin of the Zanatenco River. Some of the site's tight configuration was dictated by local hills and topography. Even so, the main features of the MFC pattern are clear, especially when the dates of the different mounds are considered (Fig. 5.21). Basic components of the MFC pattern include Mounds 4, 5, 6, 7, Enclosure B, and possibly Mounds 8 and 10. Of these, Mounds 4, 5, 7, and 8 have been tested and shown to have been built in late Chiapa II-B times, about 850–750 BCE (McDonald 1983:10, 16, 32, 33). Mound 4 was enlarged until it was 8 m tall by 500 BCE. When first constructed, it was less than 4.5 m high (McDonald 1974). It rests upon a broad, low platform, just like its larger counterparts at La Venta and Chiapa de Corzo. The main plaza at the site is obscured by the presence of Enclosure A. Excavations there show that it was built in Chiapa IV times, long after the original site was built, so the plaza was originally open. Mound 6 and Enclosure B were not tested, but they conform to the MFC pattern known from other Chiapa III sites and probably date to that time period. The main axis of Tzutzuculi is 38 degrees east of magnetic north, an axis which aligns the site with Tres Picos, a prominent peak of the Sierra Madre range (McDonald 1977:561).

Figurines at Tzutzuculi are very rare, and the pottery is largely local, so there are few clues of distant cultural contacts other than the stone monuments, architecture, and site layout. The sculpture and architectural evidence points to strong ties to La Venta. These sites had parallel histories as well. Both were established about 900–850 BCE and abandoned about 400 BCE (Fig. 5.2). Tzutzuculi shows the greatest contrasts with its clos-

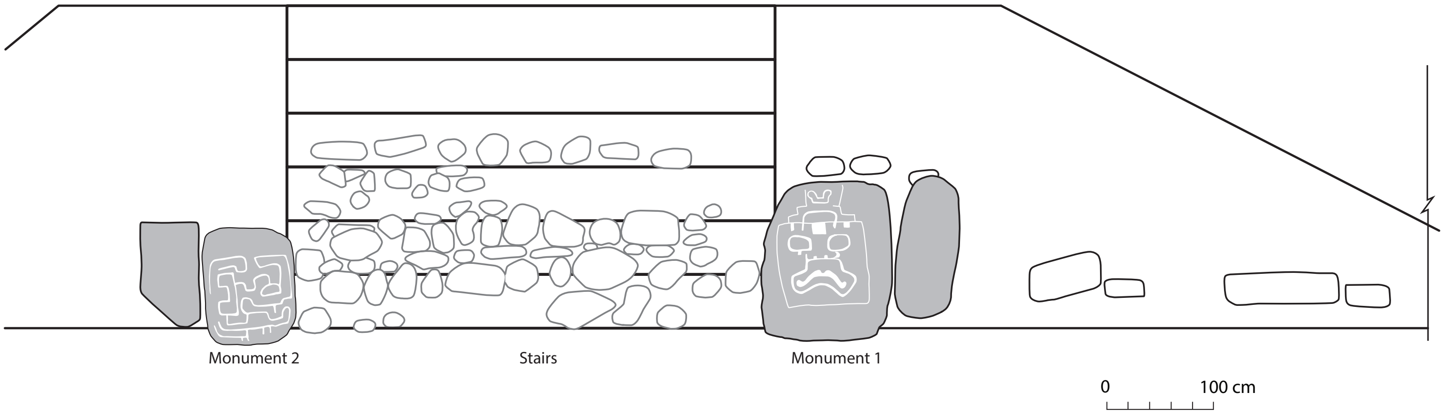


5.21. Site map of Tzutzuculi, with gray coding showing the location of the earliest mounds.

est coastal neighbor, Laguna Zope, located 130 km to the northwest in the Isthmus of Tehuantepec. The contrasts between these two sites in material culture, given their proximity, indicate that the differences were cultural and deliberately marked.

LAGUNA ZOPE, OAXACA

Laguna Zope was the largest site in the southern Isthmus of Tehuantepec from Early Preclassic to Classic times, 1750 BCE to 300 CE (my chronological adjustments to the phases). The site is located 1 km west of the Los Perros



5.22. Reconstruction of the facade of Mound 4 at Tzutzuculi.

River and 10 km upriver from the Laguna Superior (Fig. 5.1). Robert Zeitlin (1978, 1979, 1982, 1993, 2001a; see Delgado 1965a) observes that the site was established in a favorable location at the nexus of several trade routes between lowland and highland regions that connected Oaxaca with the Soconusco, both with Olman, and all of these with central Chiapas. The inland estuary waterway reported by Carlos Navarrete (1978) that connected coastal Oaxaca to El Salvador ran through the Laguna Superior, just about two hours' walk from Laguna Zope, so the community was well positioned and connected. Even today, all the major roads and railways through the Isthmus pass near this site (Zeitlin 1978, 1993). The people at Laguna Zope specialized in making and trading items of marine shell (Zeitlin 1993). Evidence of ancient connections and trade are best seen in changes in imported obsidian goods through time and in changing ceramic complexes and their stylistic similarities to those in adjacent areas. There are enough shared modes in ceramic types and forms to correlate the ceramic chronology of Laguna Zope to those of Middle Preclassic centers of western Chiapas (Fig. 5.2) but sufficient dissimilarities to mark different cultural traditions. Kingdom building occurred all across Mesoamerica during the Middle Preclassic and involved many different linguistic and cultural groups. Marcus Winter (2007:200) speculates that the people of Laguna Zope were proto-Mixe speakers.

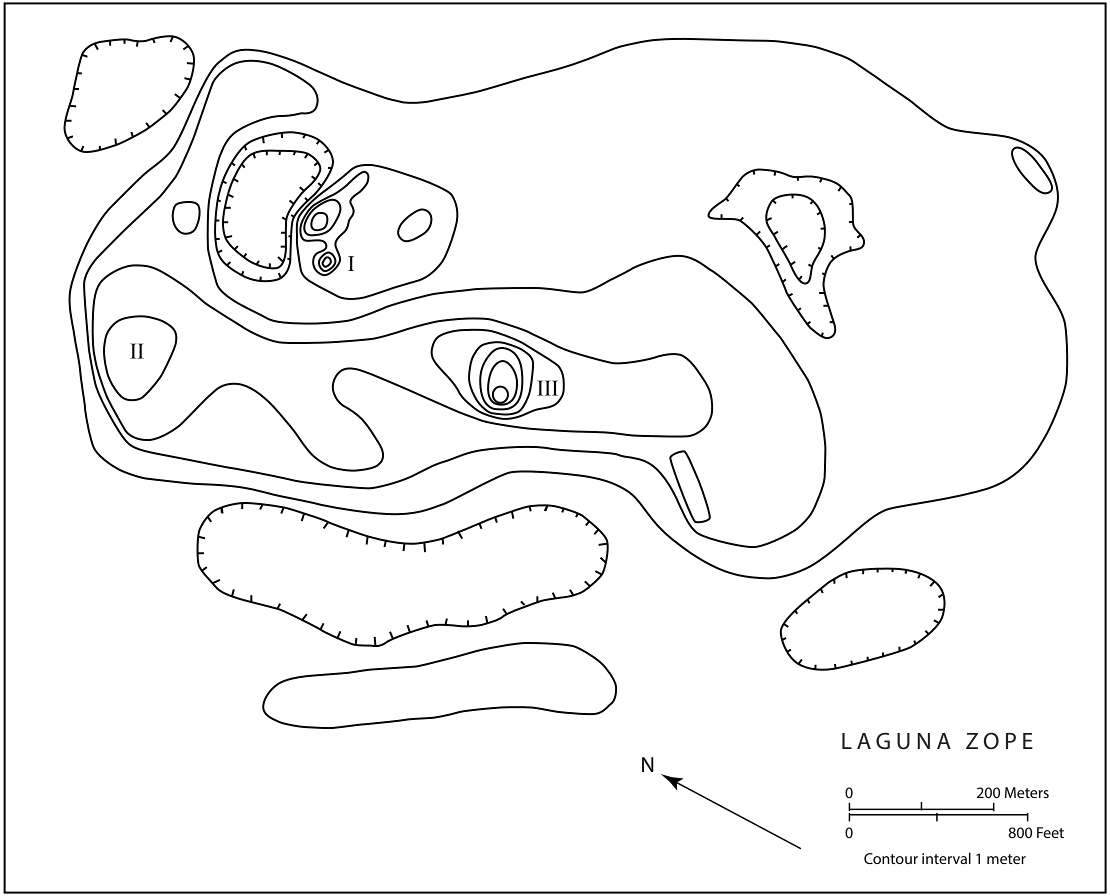
The three large earthen mounds that constitute the monumental center of Laguna Zope date to Middle and Late Preclassic times. These grew by accretion and are more akin to Near Eastern tells than to pyramids. Zeitlin (1993) argues that they were platforms for elite houses, and he reports several Late Preclassic domestic structures on top of Mound III, the tallest mound at the site at 9 m high. During the Middle Preclassic, this platform was less than 6 m high. As apparent in Figure 5.23, there is no obvious orientation to the disposition of the principal mounds at Laguna Zope. They do not appear to have been platforms for public or civic-religious buildings such as described above for other sites. Of the regional centers considered here, Laguna Zope is one of the smallest. Its three large platforms were in place by 600 BCE. The Ríos phase (900–500 BCE) community extended over 90 ha and probably had 1000 to 2000 people (Zeitlin 1993:86; 2001a:393; 2001b:541).

The ceramic and obsidian records at Laguna Zope are complicated and show swings of influence from west to east, then back again (Zeitlin 1979; 2001b). Middle Preclassic Ríos phase ceramics were typical of the widespread horizon style of white, flat-bottomed, out-leaning-wall bowls with double-line break designs incised on their interior rims—a design typical of the early Middle Preclassic all across Mesoamerica. The Goma phase (500–300 BCE) at Laguna Zope saw close ties to eastern kingdoms, with obsidian imported from highland Guatemala, and pottery including orange splotchy-resist vessels and waxy red wares typical of western Chiapas and even the Maya lowlands. Ceramic wares changed abruptly about 300 BCE to emulate the gray wares from the Valley of Oaxaca (Zeitlin 2001b) and the differential-fired black-and-white pots from Tres Zapotes (Zeitlin 1979). This was the time of the expansion of the Zapotec state at Monte Albán throughout the Oaxaca highlands (see below). Laguna Zope apparently came under the influence of the Monte Albán state, but not under its domination. Zeitlin (1993, 2001b; Zeitlin and Joyce 1999) claims that the pottery similarities between Laguna Zope and Monte Albán are better accounted for as consequences of trade with a powerful neighbor rather than from a Monte Albán conquest of Laguna Zope. As noted, some Oaxaca pots made it to San Isidro and Chiapa de Corzo.

Laguna Zope is located almost equidistantly between Tres Zapotes, Monte Albán, and Chiapa de Corzo (Fig. 5.1), so it is not surprising that its ceramic inventory reflects its medial position and was particularly sensitive to changes in the relative power of its neighbors. Zeitlin (1979:62) explains the situation during the Kuak phase (300 BCE to 1 CE).

> During the Late Preclassic a noteworthy overlap of horizons is articulated by the Isthmus of Tehuantepec. The northern and southern regions share both greyware traditions with the Oaxaca Valley to the west and differentially-fired white-rim blackware traditions with the Chiapas Central Depression to the east. At the same time, the Chiapas Central Depression had strengthened its connections with the Maya Chicanel–related waxy-slipped orange and other pottery types (Lowe and Mason 1965:217–18; Peterson 1963:12).

Shifts in obsidian exchange evince the same complexity. Differences in the frequencies of obsidian tools show changes in sources. During the Early Preclassic, the principal sources of obsidian were El Chayal, Guatemala, and Guadalupe Victoria in eastern Puebla, Mexico. Use of El Chayal obsidian continued through the Preclassic period, but during the Middle Preclassic Guadalupe Victoria obsidian dropped out and was replaced by that from



5.23. Map of Laguna Zope.

Altotongo in central Veracruz, Mexico, and another unidentified source (Zeitlin 1982:268). Zeitlin observes that this was the same obsidian used at La Venta (Hester et al. 1973:167). At about 400 BCE, with the collapse of La Venta, obsidian was once again imported from the Guadalupe Victoria source (Zeitlin 1982:268). These changes indicate power shifts in Mesoamerica during the Middle Preclassic period. The history of Laguna Zope's shifting alliances and economic connections is important for monitoring changes in the global economy in Middle Preclassic Mesoamerica and in identifying its major players. Just on the basis of ceramics alone, the eastern kingdoms in Chiapas and the Maya area appear to have been particularly influential beginning about 500 BCE, with the Monte Albán Zapotecs countering and pushing back this influence by 300 BCE. Tres Zapotes appears to have been nearly as influential, too. Laguna Zope was a primary center and had no close rivals or known secondary centers in its immediate region.

A Middle Preclassic hamlet has been reported 18 km upstream from Laguna Zope at Barrio Tepalcate (Winter 2007:198), formerly called Iglesia los Tepalcates (J. Zeitlin 1978:173). The earliest secondary centers date to the Late Preclassic period (Zeitlin 2001b:541). Similar to the situation at Tres Zapotes, the closest kingdom to the north, Laguna Zope lacked an E-Group or any semblance of deliberate planning and was not part of the MFC pattern described for La Venta, Tzutzuculi, and other Chiapas centers. These obvious differences in cultural practices and representations vis-à-vis the Chiapas kingdoms signal cultural differences and a likely cultural boundary between the Isthmian lowlands and highland Chiapas, as indicated in Figure 5.1. Tres Zapotes, located 240 km north of Laguna Zope, exhibits some of the same sorts of differences.

TRES ZAPOTES, VERACRUZ

Tres Zapotes was located on the western fringe of the Olmec heartland about 160 km west of La Venta. It was in an area of good farmland at the foot of the Tuxtlas Mountains and on the edge of the Papaloapan River floodplain and on a natural travel and trade route (Pool 2007:246–47; Pool and Ohnersorgen 2003:31). Tres Zapotes was contemporaneous with San Lorenzo and La Venta, both in their day, but does not appear to have been a serious rival to either kingdom. Rather, the apogee of Tres Zapotes came during the Late Preclassic and Protoclassic periods after the collapse of the La Venta kingdom. During its golden age, Tres Zapotes had over 160 mounds and spread over 5 km^2 (Pool 2003, 2007:19). Much of Tres Zapotes is deeply buried, but limited excavations and auger tests reveal the presence of an Early Preclassic occupation coeval with and stylistically similar to that of San Lorenzo (Ortíz 1975; Pool 2000:141–42; Pool and Ohnersorgen 2003:3; Wendt 2003b). Some ceramics and figurines also show stylistic similarities to those in highland Mexico (Pool 2006b). Tres Zapotes was occupied until Late Classic times, with some reoccupation in Postclassic times (Pool 2007:250).

The first Olmec colossal head was reported for Tres Zapotes in 1869 (Melgar 1869; see Bernal 1969: plate 5), and the earliest excavations were carried out in 1939 (Stirling 1940a). Thus, Tres Zapotes began as the type site for Olmec culture and sculpture, but in retrospect, its sculptures largely postdate Olmec times (Pool 2007). Some overlap with earlier Olmec centers is evident in ceramic and figurine inventories and the presence of two colossal heads found at the site (Fig. 5.24). These heads are thought to have been portraits of kings; if true, their presence at Tres Zapotes indicates that it was an ancient kingdom independent from that at La Venta. These two centers were probably the capitals of contemporaneous kingdoms during the early Middle Preclassic period, the likely time these basalt heads were brought in to both sites. El Marquesillo, a site where a 12 ton tabletop throne has been discovered (*Arqueología Mexicana* 54:15 [2001]), is located 60 km east-southeast of Tres Zapotes (Pool 2007: fig. 1.3). It may prove to have been another rival kingdom (Doering 2007). Numerous niched altars are known for La Venta, but none for Tres Zapotes.

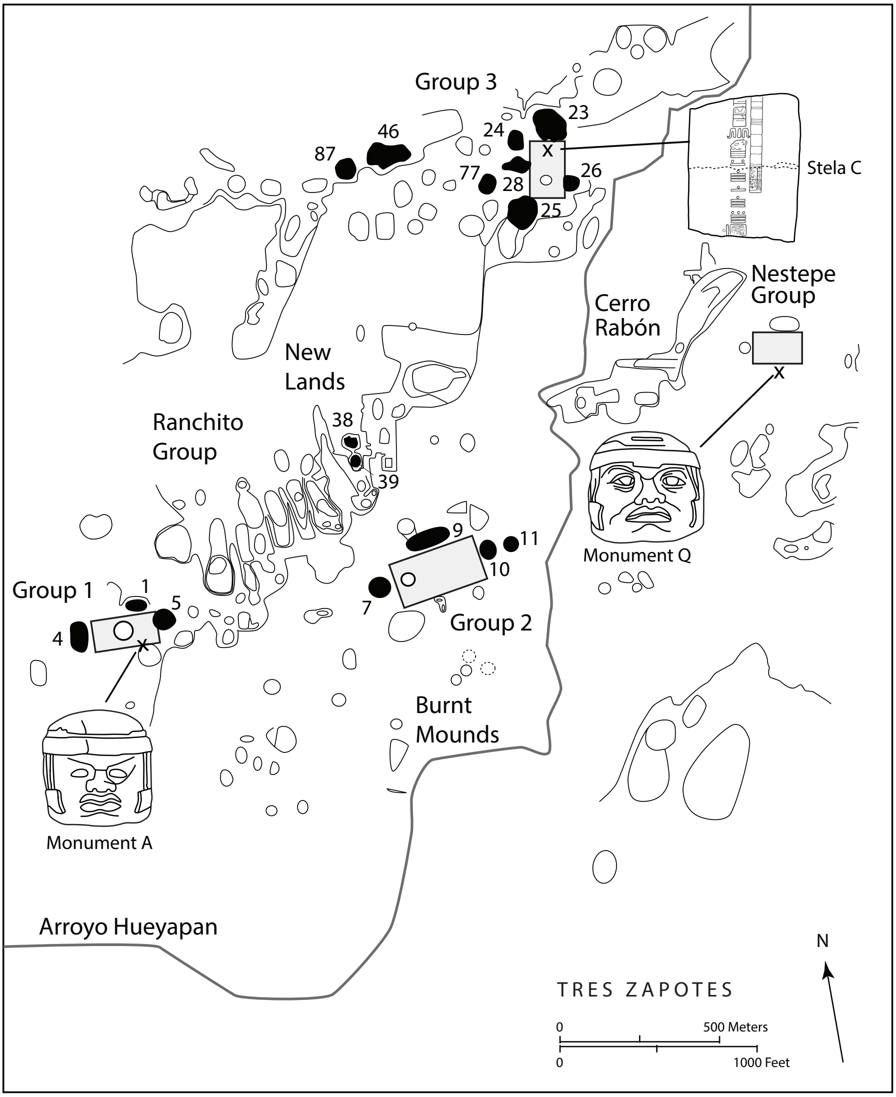
Of particular interest for discussion here are the striking differences in site layouts between Tres Zapotes and La Venta (compare Figs. 5.24 and 5.3). Four low platforms are known for the Middle Preclassic period at Tres Zapotes.

> One of these structures formed the initial construction phase of Mound 5, at the east end of the plaza in Group 1, and consisted of a red clay platform, about 1.5 m tall (Weiant 1943:6). On the south edge of Group 2, an altar consisting of a small, carved serpentine column set upright in a hole carved through a basalt slab was set on a low platform and surrounded by upright basalt columns, reminiscent of Tomb A at La Venta (Millet 1979). Basalt columns also ringed a 2 m high earthen platform a short distance to the south. (Pool 2007:248)

The other low mound is about 80 cm high and located in Group 2, north of a long mound (Pool, pers. comm. 2008). Other than these modest mounds, all platforms and pyramids at Tres Zapotes appear to have been constructed in the Late Preclassic period (Pool 2007:247). If the colossal heads found at Tres Zapotes really were originally of rulers of that place, there apparently were no tall mounds to go along with them. Of course, the same correspondence holds for the colossal heads at the earlier site of San Lorenzo (Cyphers 1996:70, Chapter 4, this volume). Monumental construction at these sites was horizontal rather than vertical and manifest in broad terraces, house platforms, and causeways (Clark 1997; Cyphers 1996; Lowe 1989b). Monumental construction at early Tres Zapotes could have been in terraces, although there is not much evidence of it (Pool and Ohnersorgen 2003; Wendt 2003b). Alternatively, the colossal heads at Tres Zapotes could have been hauled in at a later date from a nearby Middle Preclassic center that has yet to be identified (I presume these colossal heads are stylistically later than those of San Lorenzo). If the colossal heads were carved for Tres Zapotes rulers—governing a town without towers—this pairing of low mounds and giant heads has interesting implications for the four colossal basalt heads found at La Venta. Matthew Stirling's (1943b:17) excavation of Monument A at Tres Zapotes, the colossal head in Group 1, "discovered that it had been placed upon a foundation consisting of a layer of unworked stones at the ancient plaza level…." This sounds like a primary and early context for Tres Zapotes Monument A.

The colossal basalt heads at La Venta appear associated with monumental architecture and the MFC complex. The arrangement of pyramids, plazas, and modest mounds at Tres Zapotes clearly differs. The principal mounds are spaced about 900 m apart (Pool 2000:140, 2007:250) and are clustered into four groups around plazas (Fig. 5.24). These vary in orientation and the size of the mounds (Pool 2007:248). The principal plaza groups conform to a different pattern than at La Venta but incorporate some of the same elements.

> The basic Late Formative plan of these mound groups consists of a large plaza, oriented approximately east-west, with a tall, pyramidal, temple mound on the west end and a lower, longer mound on the north edge. The long mounds probably supported administrative buildings, but refuse deposits behind the long mounds in the Nestepe Group and



5.24. Map of Tres Zapotes showing the location of colossal heads and Stela C as well as plazas (shown as gray rectangles).

Groups 2 and 3 suggest they also were places of elite residence. In each group a low platform placed on the central axis of the plaza appears to have functioned as an altar. (Pool 2007:248)

What is particularly interesting at Tres Zapotes is the repetition of the elemental pattern within the same site rather than having one rationalized, overall layout such as seen at La Venta, with simplified copies throughout a region. The duplication of units is the classic signature of mechanical versus organic solidarity. The architectural redundancy at Tres Zapotes suggests a parallel duplication of functions at the site, and one not seen at La Venta or any of the other western kingdoms considered here. Pool (2007:248–50) attributes the dispersed pattern of platforms and plazas at Tres Zapotes to a different organizational principle of social and political life than seen at La Venta. He postulates Tres Zapotes was governed by a council or coalition of lineage leaders and that each cluster of pyramids around a plaza represented the seat of one of these ruling lineages. This becomes another argument for the images of kings on the colossal heads and two stelae from the site (Monuments A and F) being earlier in the sequence (see Pool 2010 for discussion of new monuments and their implications). The two colossal heads are associated with plaza groups at opposite ends of the site (Fig. 5.24), analogous to the north and south lines of heads at La Venta's boundaries (Fig. 5.3). If colossal heads portrayed single, strong leaders, then another expectation is that Tres Zapotes took a different path to political stability later in the Late Preclassic. It is not clear when this occurred, if indeed it did. But the main points of Pool's argument, that there were multiple kingdoms in Middle Preclassic Olman and of different organizational complexity and/or type, are confirmed.

The Middle Preclassic at Tres Zapotes is still poorly dated by one long phase (Fig. 5.2), so it is difficult to monitor changes. At this time, "Tres Zapotes emerged as a regional center covering some 80 ha (Pool and Ohnersorgen 2003). The two Olmec colossal heads from Tres Zapotes may date from early in the Middle Preclassic period" (Pool 2007:152). The broad regional settlement has not been dated with sufficient precision to determine the emergence of a regional polity at Tres Zapotes (Pool 2007:152), but the settlement just around the site has. "Several concentrations of Tres Zapotes phase pottery surrounding the center suggest the existence of rural homesteads and villages. The largest of these, revealed only by auger tests, covered about 15 ha on the opposite bank of the Arroyo Hueyapan. The remaining concentrations cover less than 5 ha" (Pool and Ohnersorgen 2003:24). On the basis of these clustered settlements, Pool (2007:154) posits that Tres Zapotes had at least a two-tier settlement hierarchy in the Middle

Preclassic period (Pool 2007:176). The presence of Middle Preclassic sculptures in the round of full-figure seated males (kings or princes) at other sites in the Tres Zapotes region (Loughlin and Pool 2006) indicates the existence of at least a three-tier settlement hierarchy for this period. These early sculptures are similar to those at La Venta, but this is not surprising because the basalt outcrops used for La Venta sculptures were near Tres Zapotes (Pool 2007). The use of columnar basalt is another feature shared between these centers.

Other indicators of foreign relations are evident in obsidian exchange and ceramic styles. As mentioned, some sherds from ceramic vessels imported from La Venta have been found at Tres Zapotes (King 2002; Pool 2007:146; von Nagy 2003:199). Most obsidian is from surface collections (Knight 2003), so it cannot be attributed precisely to phase. During the Middle Preclassic, the principal sources were Guadalupe Victoria and Pico de Orizaba obsidian, with minor amounts of obsidian coming from the more distant Zaragosa, Puebla, source (Knight 2003:87; Pool 2007:150). Obsidian from San Martin Jilotepeque, Guatemala, has been found in the Los Tuxtlas region but not at Tres Zapotes (Pool, pers. comm. 2008). Most of the obsidian came from western sources in the Mexican uplands, as observed for La Venta and Laguna Zope. The ceramics complicate this story.

> In general, and in contrast to obsidian exchange… ceramic affinities suggest less interaction of the southern and south-central Gulf lowlands with western Mesoamerica and greater interaction along the old corridor through Chiapas and southern Guatemala. That distribution coincides reasonably well with commonalities between epi-Olmec and “Izapan” writing and sculptures.… (Pool 2007:269)

Pool’s diachronic, regional comparison between Tres Zapotes and La Venta (2007:154) nicely shows that the advent of the Late Preclassic was a time of radical demographic change. This was accompanied by changes in ceramic styles, a reduction in traded luxury goods such as jade (Pool 2007:245, 268), new sculptural styles, and the beginning of writing (Pool 2007:243). As discussed above, the Late Preclassic was a period that also witnessed the maximum influence from Tres Zapotes on sites in the Isthmus and western Chiapas, especially in the resurgence of white-rim blackware as a marker of identity. Tres Zapotes appears to have had less influence on the more westward kingdoms in Oaxaca and those reported by David Grove (Chapter 3, this volume) for the Mexican plateau.

SOME OBSERVATIONS

My purpose in this chapter has been to put basic facts and proposals on record to provide broad historical context for developments in the Maya area that led to state societies there about 300–200 BCE. Space precludes drawing out very many of the implications of the preceding site biographies. I highlight five implications of particular significance that may help in understanding the rise of early Maya states.

First, it is clear that developments in the Maya lowlands and highlands during the Middle Preclassic period were part of a broader pattern of the construction of cities and towns and the establishment of kingdoms all across Mesoamerica. In each region, developments conform to a spatio-temporal series, so it is clear that concepts about how to organize and run a kingdom got around quickly after the emergence of early kingdoms at San Lorenzo, La Blanca, and La Venta. It follows as patently obvious that all Middle Preclassic kingdoms in Mesoamerica were secondary rather than primary developments (see Chapters 3, 6, 7, 8 for contrary views on the logical necessity of this proposition). By 1000 BCE most sentient Mesoamericans had heard of the wonders of San Lorenzo and the deeds of its rulers. Stories and gossip of the San Lorenzo kingdom would have contained some basic facts about how it was organized and governed. Consequently, later polities could have been, and were, made to order along preconceived plans with foreknowledge of how kingdoms elsewhere successfully operated. That is, developments could have been teleological. Middle Preclassic peoples could pursue kingdom-building as an overt and premeditated option, and do it swiftly. Mesoamerica as a hyper-connected geographic area of shared cultural practices and beliefs was in place by 1300 BCE, and developments in one of its regions could have been quickly known in others. Explanations for the rise of Middle Preclassic kingdoms, or even of states, need to take into account the knowledge of complex polities that was making the rounds and not restrict critical causal factors of political evolution solely to ecological processes or economics.

Second, one of the exciting features of the Middle Preclassic is that it was Mesoamerica's era of kingdom and city building. At the beginning of this period many cities were started from scratch as colonies, and they subsequently budded off in their own regions. The second half of the Middle Preclassic and the beginning of the Late Preclassic was an era of settling down and regionalization. Most Middle Preclassic Chiapas kingdoms, for example, started as towns or cities in the middle of nowhere, with no discernable support populations around them. These were top-down entities at the beginning. One curiosity of the Middle Preclassic data for central Chiapas is that there are more primary than secondary centers. The settlement hierarchy filled in as population grew, so secondary and tertiary centers were established later in most kingdoms. It follows that most of the regional centers in Chiapas did not develop locally from extant populations but were transplanted from elsewhere. This is most clearly seen in central Chiapas with the imposition of the MFC complex. Whether or not the historical conditions that led to the establishment of new centers in Chiapas apply to the Maya lowlands or any other area of Mesoamerica remains to be seen. Data in hand indicate the existence of multiple kingdoms in the Maya lowlands during the late Middle Preclassic. I expect that the situation in the Maya lowlands during this period was at least as complicated as that in central Chiapas.

Third, the preceding case histories indicate the need to analyze kingdoms at multiple spatial scales. Clearly some of the events in greater Mesoamerica impacted kingdoms in distant regions, but most critical events were probably closer to home. Given the facts of secondary development and colonization, issues of kingdom origins are sometimes less problematic than those of kingdom collapse. Origins questions require an interregional, historic perspective to trace Middle Preclassic colonies to original founder populations. Long-distance exchange of various kinds came and went during the Middle Preclassic, with influence from Olman being important early on. In Chiapas, Gulf Olmec influence was eclipsed near the end of the period with strong influence from the Maya region—both lowland and highland. Maya influence was even felt in the Valley of Oaxaca and at early Teotihuacan at the height of Maya state development in the lowlands, so something especially important happened in Mayaland at this time. The areal impact of Maya influence was significantly greater than Zapotec influence from Oaxaca.

Lowe argued for competition between Zoques and Mayas at the macroregion level to explain parallel developments in these adjacent groups. As is apparent in the preceding kingdom histories, this hypothesized ethnic competition is a scholarly construct, not a historic reality. Different Zoque kingdoms in central Chiapas competed with each other, and this was more critical than competition with more-distant kingdoms in the Maya lowlands, the Isthmus of Tehuantepec, or the Valley of Oaxaca. Once more information becomes available, it should become clear that independent Maya kingdoms competed with each other to the same degree. There are no grounds for generalizing to entire ethnic or language groups from histories of individual polities. The differences between the Zoque kingdoms at Finca Acapulco and Chiapa de Corzo, for example, are striking. These adjacent polities differed significantly from those at San Isidro, La Venta, Izapa, or Tres Zapotes. The divergent histories of Chiapa de Corzo and neighboring Finca Acapulco derive partly, I think, from alliances forged between the leaders at Chiapa de Corzo and La Venta that eventually undercut the power and authority of the leaders at Finca Acapulco. I suspect that leaders of Chiapa de Corzo cemented foreign alliances to compete better locally. A similar arrangement may have occurred later when Chiapa de Corzo regents shifted loyalties from La Venta to a lowland Maya polity or polities about 300 BCE, perhaps to save their skin. Zoque centers upriver from Chiapa de Corzo were disbanded just before this time, perhaps because they rejected Maya hegemony. Whether future data will support these specific speculations of inter-polity alliances is not the point. The larger issue is that one needs to identify archaeologically the polities that had regional decision-making capabilities at any given time and leave open the likelihood that leaders or rulers of these polities could and did pursue strategic partnerships involving different cultural groups. We should not assume that in prehistory blood was thicker than water or that peoples of different cultural and language groups did not cooperate with one another at the expense of peoples of their own cultures. One of the interesting things about the Late Preclassic was the manipulation of identity and ethnicity in the era of coalition and kingdom-building, as most clearly seen at Chiapa de Corzo.

Fourth, the polity histories presented here were the prelude to the development of regional states at the beginning of the Late Preclassic period. In contrast to the start of the Middle Preclassic, Late Preclassic kingdoms confronted populated landscapes—at least in the best spots of the most productive agricultural regions. The Middle Preclassic was an era of colonization, founding, building, and filling the landscape. At 1000 BCE, most of

Mesoamerica was still open, and people moved around. With subsequent population packing, the demographic resources littering the landscape changed the possibilities for political maneuvering and development, as most clearly seen in the Valley of Oaxaca (Grove, Chapter 3, this volume) and the Mirador Basin (Hansen, Chapter 8, this volume). One of the facts evident in the preceding census of western kingdoms is their variety. I have attributed much of this to cultural differences, but as Pool (2007) has argued for Tres Zapotes, some complex regional polities may have been organized in fundamentally different ways, and this would have affected the types of alliances and strategies pursued by the governing body of each polity, as well as their capacity for international influence. It follows that the term "kingdom" would be inappropriate for political entities with collective decision-making at the highest level and that a more appropriate descriptive label ought to be used that better approximates the structure of ancient decision-making of these polities.

Finally, the timing of the rise and fall of Middle Preclassic kingdoms is too close to be random or autonomous. Given the spread of regional polities in the Middle Preclassic, I find it remarkable that most of them fell apart just before the emergence of regional states in most areas of Mesoamerica. The spread of kingdoms and related polities established the conceptual and practical bases for their own obsolescence and the rise of regional states (Clark 2009). Some polities in the Late Preclassic were significantly larger than earlier kingdoms. Just in this sample of western kingdoms, one sees several examples of older kingdoms that were squeezed out by daughter communities established during the era of expansion. Territorial expansion was destabilizing in several ways, as is especially evident in the histories of La Blanca, Finca Acapulco, and La Venta. These kingdoms were outflanked and choked off by rivals they established or sponsored. The histories of Monte Albán and El Mirador appear to have been the reverse—polities growing up in the center of large populations that eclipsed or absorbed flanking kingdoms (see Hansen, Chapter 8, this volume). These patterns of kingdom emergence and collapse suggest that the most critical competition facing Middle Preclassic rulers was that nurtured within the boundaries and at the edges of their own domains. If so, the rise of regional states at the beginning of the Late Preclassic may have been largely a regional affair promoted by internal and factional competition among the elites of these selfsame kingdoms. The data for the Valley of Oaxaca certainly can be read in this way, and I suspect those for the Mirador Basin, given the number of large, early centers there and their tight packing, will prove to conform to this pattern also. This is to suggest that the catalyst for the rise of Maya states may have been internal, structural contradictions aided and abetted by strategic alliances to kings and nobles in neighboring polities.

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Regional and Interregional Interactions and the Preclassic Maya

FRANCISCO ESTRADA-BELLI

For over a century, theories on the origins of civilization in Mesoamerica have favored influences from a single place of origin, usually attributed to diffusion of ideas or actual migrations. This is nowhere more apparent than in past explanations for the development of Classic civilization in the Maya lowlands. Recently, a growing body of archaeological evidence has pointed to interaction within and between regions as a major contributor to the development of complexity throughout Mesoamerica. The role of regional and interregional interaction in maintaining the coherency of various developmental trajectories while fostering innovation and change are certainly reflected in the Maya archaeological record during the Preclassic period, as it will be demonstrated below. But, among scholars there was almost always a preference for searching for cultural innovation outside of the Maya region, and that has caused many lacunae in our understanding of other, perhaps more significant, local processes.

Since the beginning of archaeological inquiry on the origins of Maya civilization almost a century ago, a postulated Highland-to-Lowland flow of people and ideas has dominated the discourse. This was partly because the lowland regions of modern Guatemala, Belize, and southeastern Mexico states have remained vastly inaccessible for much longer than the highland regions. At the same time, the pre-Hispanic achievements of the highland Maya people have been readily visible to archaeologists from very early in the history of our discipline. The predominance of Highland-to-Lowland theories to explain lowland Maya achievements may also be due to the direction taken by lowland Maya archaeology in the 20th century, favoring Late Classic period sites with inscriptions and effectively leaving the problem of the origins of civilization to be grappled with by a small number of specialists with an impossibly small sample. Each time significant amounts of new data were brought forward, our assumptions had to be necessarily adjusted (Adams and Culbert 1977; Grube 1995). Once again, today we have new data from archaeological excavations and survey projects and the time has come for us to re-evaluate Highland-to-Lowland models of interaction in light of this evidence.

THEORIES ON THE ORIGINS OF MAYA CIVILIZATION IN THE EARLY 20TH CENTURY (1910–1960)

When the Carnegie Institution of Washington began its excavations at Uaxactun in the 1930s there was little actual archaeological evidence for any period before the Classic. One of the most authoritative views on the antecedents to the Classic Maya was held by Herbert Spinden (1928). Based on scanty evidence from highland Mexico and Guatemala he concluded that complexity had emerged in those areas with the longest history of occupation. The few known sites in highland Guatemala with Paleoindian-period occupations, dating to about 11,000 years ago, were believed to belong to a culture of hunters directly ancestral to the first Maya farmers. The only known cultural manifestations of these people were so-called Archaic figurines found throughout the highlands, but which actually dated to much later. Spinden (1928) also believed that highland farmers had colonized the lowland region long after having established an agricultural way of life in the more fertile highland valleys. The existence of similar styles of "Archaic" figurines in both regions indicated to him the general ethnic identity of highland and lowland Maya populations and supported his Highland-to-Lowland migration theory.

Highland-to-Lowland migratory theories gained momentum in the post–World War II years after being adopted by authoritative figures in Maya archaeology such as Alfred Tozzer (1957). At the time, the field of archaeology was dominated by the culture-historical paradigm, and migration and diffusion were the explanatory theories of choice in New World and Old World prehistory (Willey and Sabloff 1980). In Central America, large-scale archaeological excavations at centers such as Kaminaljuyu and

Chalchuapa had shown a great antiquity of magnificent temples, tombs, and inscriptions there. Alfred Kidder reasoned that the highlanders had the advantage of more productive and easier to manage lands compared to the lowlanders who had to tame the insidious rainforest in order to survive. This, he wrote, "would have been an almost prohibitively difficult environment for pulling oneself up, so to speak, by the bootstraps" (Kidder 1950:6). Thus the highland Maya, who had had a longer history of sedentary life and agriculture in an "easier" environment, would have developed the skills to tame the hostile lowland environment and make a living in it.

Sylvanus G. Morley (1946) took a more lowland-centric position on this issue. He argued that the existence of the earliest inscriptions and dated monuments at Tikal and Uaxactun could not be explained by highland migrations alone but must have been the result of a long accumulation of knowledge in the same area. Kidder (1950) concurred on this point and added that this could only have been accomplished by a class of specialists who were long removed from the labors of subsistence and free from interruptions. The invention of the Maya hieroglyphic script and, by extension, of civilization was a purely lowland phenomenon. Morley (1946) also prudently noted that as archaeological investigation made progress in the lowlands, the developmental stages of lowland Maya culture would become apparent. This point had been increasingly evident from the extraordinary architecture of the only lowland Preclassic period pyramid known at the time, Temple E-VII-sub at Uaxactun, whose astronomical alignments and large-scale sculptural reliefs bespoke a highly developed culture.

The Carnegie Institution's excavations at Uaxactun (Smith 1950) brought to light not only that impressive Preclassic temple but also an extensive series of stratigraphic levels of occupation that predated it. The temple itself was assigned to the later part of the Late Preclassic Chicanel ceramic phase (400 BCE–200 CE) and its elaborate iconography closely presaged Classic Maya art. Below these levels were ceramics of the Mamom phase (800–400 BCE), which were interpreted as the remains of the first "Archaic" lowlanders. Their antiquity and highland origin were suggested by similarities in monochrome vessel styles in Formative Oaxaca, Veracruz, and highland Guatemala (Kidder 1950:7).

In his 1954 book *The Rise and Fall of Maya Civilization*, Sir J. Eric Thompson rejected his own earlier conviction that the Maya were the recipients of cultural innovations from their highland neighbors, having witnessed firsthand the impressive complexity of the stucco sculptures on Temple E-VII-sub. Instead, he believed the highland and lowland Maya cultures to be a case of parallel development of two closely related but distinct cultural traditions. In addition, he noted that the then newly discovered Olmec sculptures and architecture at La Venta, Tabasco, also had much in common with Maya art, and probably represented another case of parallel development.

In fact, at the time of its discovery, the site of La Venta was suspected to have been built by a Mayan-speaking people (Stirling 1957). This discovery followed earlier sculptural finds at Tres Zapotes with carved inscriptions (Stirling 1940b) and seemed to support a theory that proposed that the origins of Mesoamerican civilization had to be researched in the tropical lowlands of the Gulf coast of Mexico. Miguel Covarrubias (1946b) and George Vaillant (1930) were early proponents of this theory based on the observation of early sculpture, ceramics, and calendar inscriptions in that region (Pool 2007). Later, the monumentality of La Venta and its complex iconography became better known, and its chronological priority with respect to any known temple in the Maya region (mostly Late Preclassic) was accepted. Alfonso Caso (1947) and Michael Coe (1966a) were strong proponents of the theory that much, if not all, that was civilized in Mesoamerican cultures could be traced back to the Olmec. Other scholars joined this position and proposed that Olmec farmers had migrated from the Gulf coast to the Maya lowlands during Preclassic times (e.g., Borhegyi 1965; Jiménez Moreno 1966). This view of the Olmec became known as the "Mother Culture" theory of the origins of Mesoamerican civilization and continues to be debated today (Blomster et al. 2005; Clark and Pye 2000b; Coe 1966a, 2005; Diehl 2004; Flannery and Marcus 2000; H. Neff et al. 2006b; Sharer 2007; Sharer et al. 2006).

Meanwhile, Maya archaeology of the mid-20th century largely focused on the highland and Pacific coast region partly because of accessibility and encroaching urban development. The bounty of data thus collected reinforced the notion that the highland Maya had produced great artistic and cultural sophistication before the onset of the Classic period and before the lowland Maya. Excavations at Kaminaljuyu by Edwin Shook and Alfred Kidder had uncovered richly furnished tombs and great temples that overshadowed anything else known in the lowlands (Kidder et al. 1946). Excavations at the site of Izapa, Chiapas, produced scores of stelae and altars, representing the largest corpus of carved stone monuments south of the Maya lowlands. While inscriptions were notably absent from Izapan monuments, the carving style and narrative content were clearly similar to that of Kaminaljuyu and appeared to be ancestral to that of the Classic lowland Maya (Coe 1966a; Norman 1973). The apex of the Izapan sculptural style was dated within the Late Preclassic period and thus represented a perfect chronological as well as geographical bridge between the Gulf coast Olmec and the Maya (Coe 1966a). Based on these approximations, the Highland-to-Lowland theory of decades before gained strength. Michael Coe and others proposed that the Izapans and Kaminaljuyu Maya, having reached their cultural pinnacle after the Olmec and before the Classic Maya, were largely responsible for transmitting the sculptural style, hieroglyphic writing, and iconogaphic motifs from the Olmec to the lowland Maya thus stimulating the emergence of Classic Maya civilization (Coe 1966a, Parsons 1986). In the mid-to-late 20th century, the literature became dominated by discussions of stylistic and linguistic relationships among Olmec, Izapans, and highland Maya to help explain the similarity and geographical distribution of archaeological traits (Campbell and Kaufman 1976; Lowe 1977).

Archaeological research and salvage operations at numerous Preclassic sites in Chiapas undertaken in the mid 20th century focused on the relationship of Chiapas cultures with the Gulf coast Olmec (see Chapter 5, this volume). In contrast to this state of affairs, archaeological research in the Maya lowlands was largely confined to documenting the complexity of the Classic Maya and much less was known about the Maya of the Preclassic period.

THEORIES ON THE ORIGINS OF MAYA CIVILIZATION IN THE LATE 20TH CENTURY (1960–2000)

Archaeological research in the latter half of the 20th century completely changed the perspective on the origins of lowland Maya civilization. Critical new data came from landmark research, including large-scale excavations carried out in the central lowlands at Tikal by the University of Pennsylvania and the Guatemalan Institute of Anthropology and History, followed by research in the previously little-known Mirador Basin, initially led by Brigham Young University. This period also saw a general increase in research on the Preclassic period across the northern and southern lowlands. The debate on the "origins" in the late 20th century centered on two main issues: *the timing of the arrival of the first farmers* in the lowlands and *the sudden emergence of civilization at the end of the Preclassic period*. El Mirador's spectacular temples and art were of such unprecedented scale and sophistication for the Preclassic period that they instantly challenged any prior assumptions and brought earlier theories under closer scrutiny (Sharer 1992; Hammond 1992). The debate that ensued continues well into the present and in the following sections is discussed with the aid of current data.

Until recently, the prevailing view has been that the first permanent occupants of the lowlands were farming colonizers of an empty area coming from the west, east, and south along the main river systems. These so-called pioneer farmers are known primarily from scanty ceramic remains which have been dated by C-14 to 900/1000 BCE. These ceramics and their associated architecture are significantly later than the earliest known farming villages on the Gulf coast and in the southern highlands (including Chiapas, Guatemala, and El Salvador), as well as in Central Mexico and Oaxaca. Because of the similarity of these ceramics with styles of neighboring highland regions, it was believed that the pioneer farmers had migrated into the lowlands from those regions.

By the 1970s, the theory that farmers had migrated into the Maya lowlands from the south or the west was treated as a corollary to other theories. These dealt with later developments in the lowlands and stressed ecological conditions, as well as processes of adaptation and competition. In a sense, while these theories sought to replace external influences and diffusion with social processes, change was essentially still seen as stimulated by causes or circumstances external to lowland society itself. In many cases, environmental factors were considered the strongest forces of cultural change.

Olga and Dennis Puleston (Puleston and Puleston 1971a) suggested a model by which colonizing farming communities spread into the interior along river routes by the process of village fissioning, thanks, at least initially, not to maize agriculture but to harvests of *ramon* tree nuts as the main staple. This model presupposed an egalitarian society, exponential population growth, and vast empty spaces away from rivers to be filled by newcomers.

Other models proposed in the 1970s contemplated the interplay of social processes such as population pressure and competition over increasingly scarce resources (land and water) internal to the Maya lowland region. After initial settlement it was proposed that resource scarcity may have led to settlement consolidation in areas of greater productivity (the Central Zone, including northern Peten region of Guatemala, southern Campeche, and Quintana Roo, Mexico), while areas of lesser productivity and lower population density remained in geographically marginal zones (the Belize, Pasion, and Northern zones). The Central Zone, where Tikal, Uaxactun, and some of the largest known sites were located, was viewed as the dynamic core in a pattern of lowland core-periphery interactions (Rathje 1971; Sanders 1977). In addition, warfare and trade were identified as the most significant mechanisms in the process that led to greater social complexity in the lowlands. Both mechanisms were stimulated by resource scarcity and population pressure as pre-conditions (Rathje 1971; Webster 1977).

The issue of the sudden appearance of civilization was logically related to the issue of the "arrival" of farming. Since the Maya were believed to have arrived relatively late in the lowlands, they also were delayed in the process of civilization when compared to their neighbors of the Gulf coast and southern highlands. The general lack of archaeological evidence for any sort of complexity prior to 300 BCE was largely responsible for the wide acceptance of this view. Basic components of civilization, such as monumental architecture, complex ceremonialism, and hierarchical organization were believed to have entered the lowlands from the highlands in a separate wave much after the arrival of the first farmers and along similar routes. The conditions could not be ripe for their adoption by lowland Maya until the Late Preclassic (ca. 300 BCE) or even the Protoclassic period (ca. 50–250 CE). Excavations in the Gulf coast region, on the other hand, had proposed the precocity and monumentality of sculpture at an even earlier Olmec site, San Lorenzo (Coe and Diehl 1980).

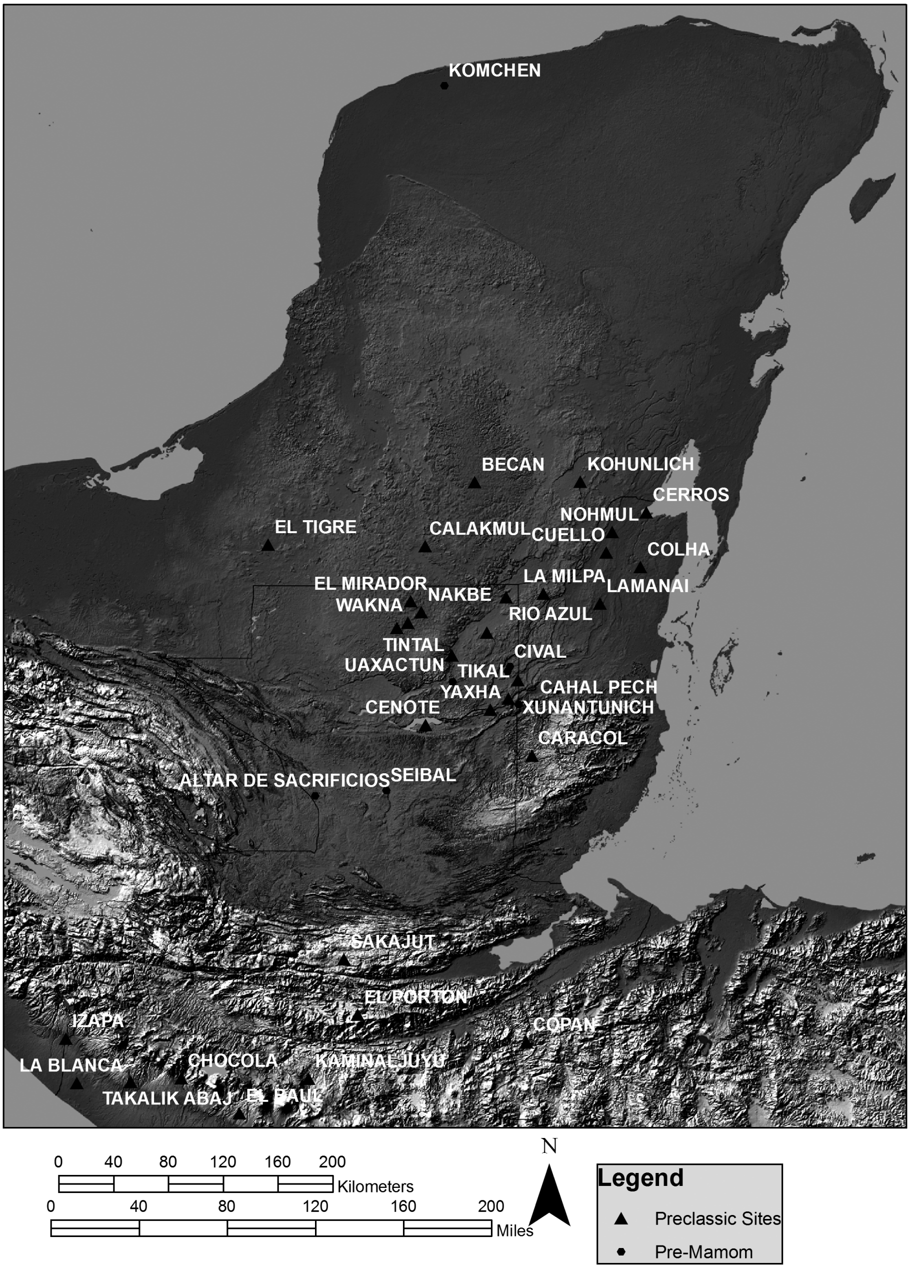
The impressive monuments from the Gulf coast and their great antiquity led a number of U.S. and Mexican scholars to embrace the Mother Culture Theory. Although waves of Olmecs fleeing from the collapse of La Venta were proposed as a stimulus to Maya florescence, few believed in direct contacts between the Gulf coast Olmec and the lowland Maya. Prior to the discoveries of large Late Preclassic centers in the lowlands, the non-contemporaneity of Olmec and Maya periods of florescence represented a major problem to any theory of direct contacts between the two cultures. As already mentioned, the solution to this problem was that the Gulf coast

Olmec and lowland Maya cultures were connected through cultures that flourished in intermediate regions. These were the Late Preclassic Izapan and highland Maya of southern Chiapas and Guatemala, who clearly shared many "cultural traits" with the earlier Gulf Olmec and later lowland Maya. The Late Preclassic period was viewed as a time of rapid growth in the lowlands and therefore the most likely period of cross-fertilization between highland and lowland cultures.

THE ELUSIVE PEASANT PIONEERS

The question of when the colonization of the Maya lowlands occurred is obviously central to the issue of the emergence of civilization in the same area. Direct archaeological evidence of the first colonizers includes little more than a few ceramic sherds from a handful of sparsely distributed sites, although pollen data from sediment cores is also crucial to this issue. The earliest ceramics in the lowlands are usually seen as evidence for the first appearance, i.e. "arrival" of groups of settlers during the pre-Mamom period, so named because these ceramics predate the first extensively distributed lowland ceramic complex. First defined during the Carnegie excavations at Uaxactun, Mamom ceramic types or their equivalent have been found at most lowland sites and date to the later part of the Middle Preclassic period from 800–400 BCE (R.E. Smith 1950). Pre-Mamom ceramics, on the other hand, are known from very few locations and are not firmly dated. They were first identified at Altar de Sacrificios and Seibal in the Pasion region, at Belize River valley sites, and at Tikal (Fig. 6.1). Since then, additional sets of pre-Mamom ceramics have been found in northern Belize, in the Central Zone, and most recently in the Holmul area.

The known samples of Pre-Mamom ceramics from individual sites are often too small to form distinct ceramic complexes and as a whole do not form a homogeneous group, as Mamom-style ceramics do (i.e., the Mamom interaction sphere, Gifford 1965). Instead, there is a relative degree of stylistic diversity among them from region to region (Cheetham 2005). Similarities are strongest among neighboring sites and areas. The pre-Mamom ceramics of Altar de Sacrificios (Xe) and those of Seibal (Real Xe) appear to be more similar to one another than samples farther afield and form a more or less distinct group. The pre-Mamom ceramics of the Holmul area share many similarities with the Belize River valley (Cunil)



6.1. Map of Maya Region showing distribution of pre-Mamom and other early Middle Preclassic ceramic complexes.

and the Tikal (Eb) complexes, but are dissimilar enough to be placed in separate groups. The similarities across areas can be seen in forms and decorations of serving vessels, while utilitarian vessels denote greater local diversity. John Clark and David Cheetham (2002) have grouped these early ceramic complexes into four major stylistic regions of interaction, but these should be expanded to at least six in light of current data. These now include a western Pasion group represented by the Xe ceramic complex of Seibal and Altar de Sacrificios (Adams 1971; Sabloff 1975). The central Peten group is represented by the Eb ceramic complex of Tikal and Uaxactun (Culbert 1977; Laporte and Valdes 1993), the Ah Pam complex of the Yaxha-Sacnab lake area (Rice 1979), and the related early Ox complex of Nakbe (Hansen 2005). A third group comprises the Cunil ceramic complex of the Belize River valley. Holmul's pre-Mamom types seem to stand on their own as a stylistic group (Awe 1992; Healy, Cheetham, et al. 2004; Strelow and LeCount 2001; Callaghan 2006; Cheetham 2005; Estrada-Belli 2006b). A fifth group is represented by the Swasey complex of the northern Belize area (Hammond 1973; Pring 1979; Kosakowsky 1987; Kosakowsky and Pring 1991). This complex is stylistically much more distinct than any of the other pre-Mamom groups (Andrews 1990b; Cheetham 2005). Finally, a sixth group is represented by the Ek complex of Komchen in northern Yucatan (Andrews et al. 2008).

The few radiocarbon dates available for the Xe, Eb, and Cunil ceramic complexes cluster around 1100 to 850 BCE (Clark and Cheetham 2002). Based on a C-14 date from a Cival closed context (chultun), the Holmul complex certainly dates to before 800 BCE (Beta-234440, C-14 age: 2670+40 BP; 1-sigma range calibrated years: 840–800 BCE; 2-sigma calibrated years: 900–790 BCE). Similar dates were also obtained for the Ek complex at Komchen and Kiuic, Yucatan (Andrews et al. 2008). In sum, at present there are no ceramics that can be securely dated to before 1100 BCE in the Maya lowlands. In lack of other direct evidence, pre-Mamom ceramics have been seen as the earliest evidence of farming settlements in the lowlands. The relatively late dates for the earliest lowland ceramics, when compared to neighboring regions, led many to conclude that the influx of sedentary farmers and their spread into the interior must have occurred fairly rapidly. So strong was the belief in the validity of this model that many scholars failed to acknowledge other sets of data that suggested very different scenarios.

THE *ACTUAL* EARLIEST FARMERS

As early as 1966, pollen data from the Peten lakes revealed signs of widespread deforestation and maize agriculture early in the Preclassic period, beginning by at least 2000 BCE (Cowgill et al. 1966; Rice 1976a). Interestingly, charcoal from the lowest archaeological levels at Cuello, Belize, the lowland's earliest village site, were then also dated by C-14 to 2600 BCE (Hammond et al. 1976) but were dismissed as erroneous (Andrews and Hammond 1990). Cuello's early dates remained controversial for some time but in hindsight may have been correct in representing the first human activity in the area, as the Peten lake cores did, instead of the earliest architecture. Later, more sediment data from Belize and Peten began to show more conclusively that deforestation and maize agriculture pre-dated the advent of ceramics in the lowlands by some 1500 years. Some sediment cores showed the first signs of deforestation and maize agriculture in the lowlands beginning at 2500 BCE, while in others corn appeared slightly later but still centuries before ceramics (Estrada-Belli and Wahl 2010; Mueller et al. 2009; Neff et al. 2006c; Pohl et al. 1996; Wahl et al. 2006; Wahl, Schreiner et al. 2007; Wahl et al. 2013).

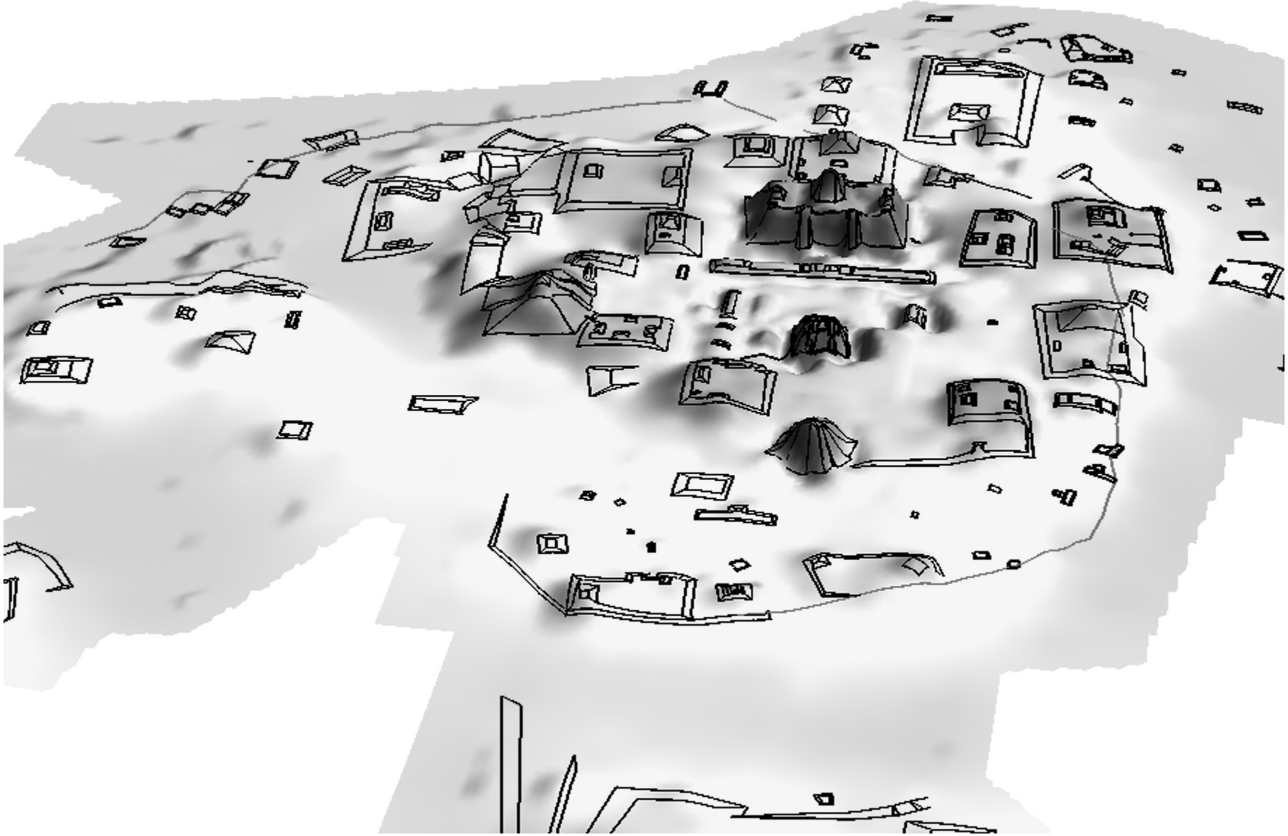
Although the number of core samples is still small, the sediment data are from geographically widespread lowland locations and form a discernible pattern. They are the only evidence we have of early or incipient agricultural societies throughout the Yucatan's interior long before the postulated ceramic-producing migrating pioneers. Who were these early farmers? Some suggest that they were the direct descendents of hunters and gatherers who roamed the lowlands in the Late Archaic period. These lowland hunters are known from small samples of stone tools from the Belize coastal lowlands (Clark and Cheetham 2002; Lohse et al. 2006). Two particular types of stone tools are known, the stemmed biface point (or Lowe point) and a type of heavy axe known as constricted unifaces. Both appear in Belize's pre-ceramic and early ceramic period levels between 3000 and 850 BCE.

The Belizean stone tool data, while limited, do provide an additional indication for the existence of elusive communities of pre-ceramic agriculturalists in the lowlands as early as 2500 BCE. The wide distribution of the pollen core data and the ephemeral nature of their archaeological remains suggest that these early inhabitants lived in small non-permanent communities and probably exploited different lowland resources on a seasonal basis. Any temporary dwellings would likely go undetected except in special archaeological conditions.

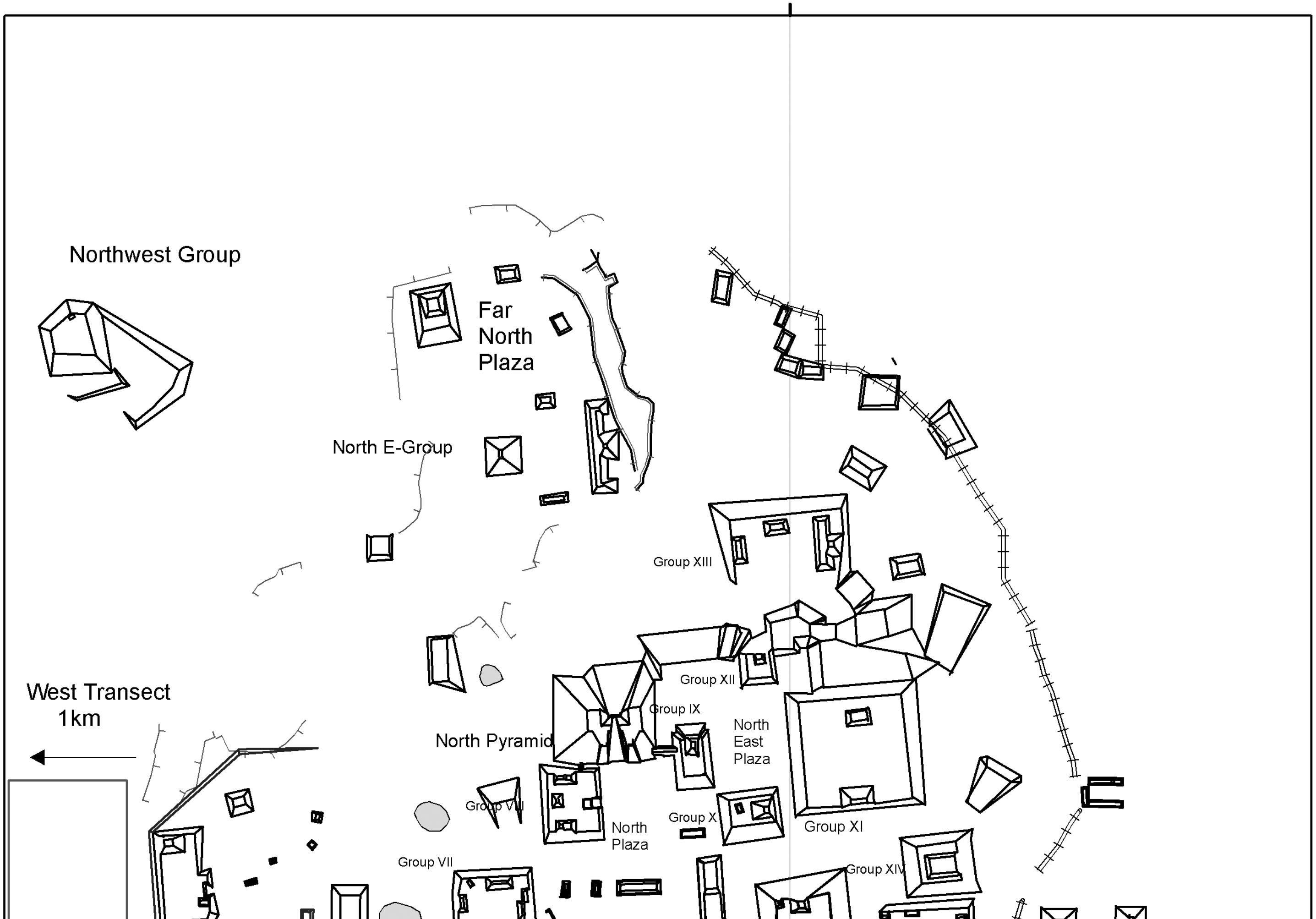
EARLY VILLAGERS AND SOCIAL RANKING

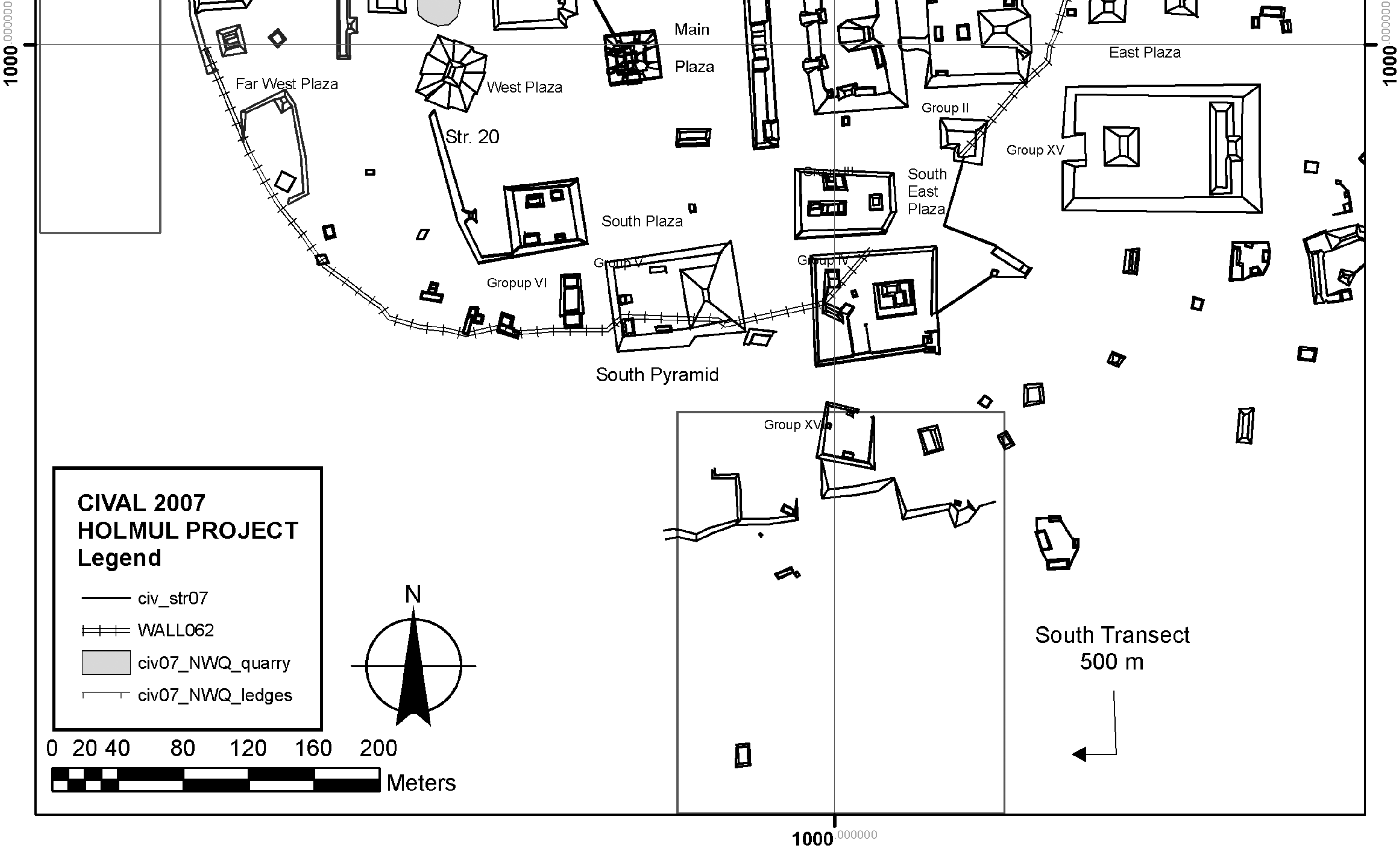
Today pre-Mamom ceramics constitute the best archaeological evidence for the earliest sedentary inhabitants of the lowlands circa 1000 BCE. They are mainly found in deeply buried contexts at the base of ritual plazas or directly on the modified natural rock surface. They are almost always found on the highest and most prominent locations of ceremonial centers (Fig. 6.2). These locations may have been selected by early farmers for the practical advantage of visually controlling nearby resources or for their symbolic value as hilltops. In later periods, these locations tend to remain the most sacred within the space of a ceremonial plaza or acropolis, and this may denote that they were originally chosen for ritual practices. Unfortunately, few structures of any kind have been reported in association with pre-Mamom ceramics. At Cahal Pech, a few simple house platforms with pre-Mamom (Cunil) ceramics have been found at the bottom of Plaza B. One was more elaborate than the others by containing a bench and red-painted plaster in the interior (Awe 1992; Cheetham 1998). A relatively high-quality structure (Structure B1-10th-13th) was found in association with pre-Mamom ceramics below a temple building at Blackman Eddy, a few miles downstream from Cahal Pech along the Belize River (Garber et al. 2004a).

Clear architectural remains have been found at no other sites for this period, nevertheless pre-Mamom ceramics are found in bedrock pits or construction fill deposits below temple buildings and plazas at a few locations. These include the North Acropolis and Mundo Perdido complexes at Tikal (Culbert 1977; Laporte and Fialko 1993a; Hermes 1993), the E-Group plaza at Cival (Fig. 6.3), and the Group II temple platform at Holmul (Estrada-Belli 2006b). In a few other cases, pre-Mamom ceramics have been found in actual ritual contexts, such as the *k'an*-cross cache with jade axes and a bloodletter of Seibal (Willey 1970a) and a jade cache at Uolantun (Puleston 1973). In addition, a shell cache at Pacbitun, Belize, which contained no ceramics, was dated to this period by radiocarbon (Healy, Hohmann, et al. 2004). These specific associations suggest that early ceramics were used also in elite or ritual contexts, or perhaps exclusively in those contexts at that



6.2. Map of Cival's ceremonial core in 3-D perspective from the southwest.


Northwest Group
Far North Plaza
North E-Group
Group XIII
West Transect 1km
Group XII
Group IX
North Pyramid
North East Plaza
Group VIII
Group X
Group XI
North Plaza
Group VII
Group XIV



6.3. Map of Holmul's ceremonial core.

time. At Tikal, extensive excavations away from the main plazas have failed to locate additional clusters of early ceramics. Therefore, the isolation of pre-Mamom contexts is not due to lack of sampling but suggests a special-purpose function.

All known samples of pre-Mamom ceramics include a majority of serving vessels and jars. The most typical forms include *tecomates* and round-sided or outcurving-side bowls, dishes with flat bottoms, outsloping sides, and everted rims, as well as vertical-side and outcurving-side dishes. In addition, the pre-Mamom ceramic inventory also includes censers, effigy bowls, and mushroom stands. Differences among pre-Mamom regional groups include ideosyncratic vessel forms and jar handles. Surface finish is largely shared across groups. This is generally an orange-brown or buff dull finish, and red, black, and more rarely white slips. Some vessel forms such as wide-everted-rim dishes or the tecomate are common in all groups. The tecomate neckless jar is common throughout the Maya highlands and Pacific coast, as well as in the Gulf coast and in the highlands of Mexico during Early to Middle Preclassic periods, and it indicates wide-ranging interactions among neighboring regions. White-slipped ceramic types are only known in limited percentages in the western Peten pre-Mamom samples and may also indicate interaction with the west, primarily with the Chiapas highlands where this surface color is more frequent.

Noting these similarities does not necessarily lead one to conclude that the farmers migrating into the lowlands brought ceramic technology and styles from other regions. The so-called donor areas could variably be identified with highland Chiapas (Lowe 1977), or the Guatemalan or Honduran and Salvadoran highlands (Sharer and Gifford 1970; Fash 1991). The fact that a new interrelated group of ceramics existed in the intermediate area between the highlands and the lowlands, such as at Sakajut in the Alta Verapaz highlands (Sedat and Sharer 1972), appeared to strengthen the case for migration. Therefore, all subsequent innovations in Maya culture were also thought to have been transmitted from the highlands to the lowlands through migrations.

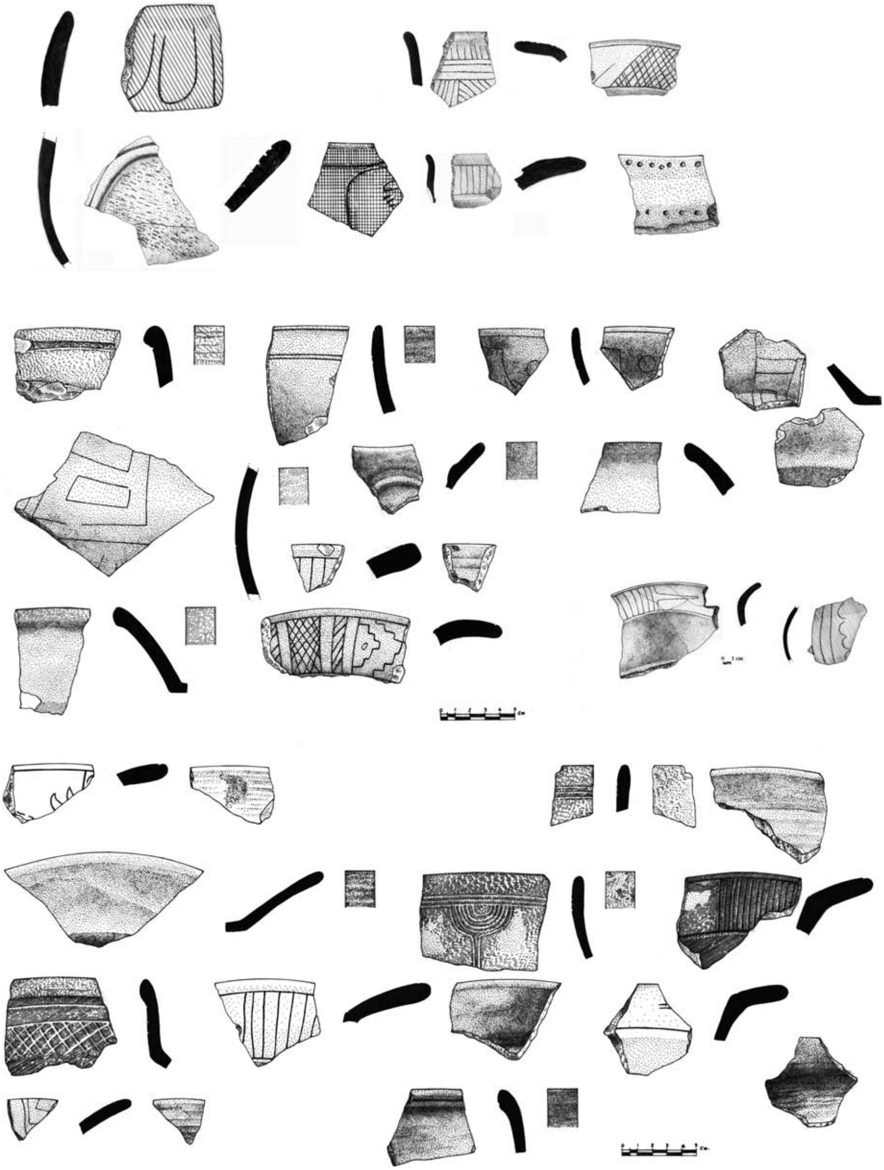
In reality, however, the similarities among the Peten pre-Mamom stylistic groups are greater than between any of these and other styles outside of the Maya lowlands. A closely related "donor area" has not been found. It is therefore unlikely that these styles were introduced into the lowlands as an already developed complex by a migrating group. Rather, these diverse stylistic forms are more likely to represent a combination of spontaneous local developments (out of pre-ceramic archetypes) and of symbolic expressions widely shared through interregional interactions on a variety of other media (mostly perishable) prior to the adoption of ceramics.

The greatest amount of overlap among the four pre-Mamom stylistic groups of the Maya lowlands is found in the motifs incised on the vessel surfaces and these are important on a number of levels. The abstract signs typically include the flame eyebrow, k'an-cross, cleft head, double-line break, music brackets, "shark tooth" or bloodletter, and avian serpent motifs (Cheetham 2005). The recently discovered pre-Mamom ceramics from Holmul and Cival, which now represent the largest available sample, also display woven mat, crossed bands, and U-shaped motifs (Fig. 6.4).

Outside of the Maya region, these motifs are found on ceramics of the late Early Preclassic and early Middle Preclassic periods in highland Mexico, Oaxaca, Gulf coast, highland and coastal Chiapas, Guatemala, and El Salvador. The vessels on which these signs occur are also generally similar to flat-based bowls and the previously mentioned wide-everted-rim dishes from the Maya region. Flannery and Marcus (1994) propose that patterned distribution of certain motifs on specific ceramic types (Gray and Yellow-white) within the Oaxacan community of San Jose Mogote reflected clan divisions. Such divisions were clearly marked in the distribution of two sets of symbols, which they group into abstract sky-monster and were-jaguar deity complexes. The first includes the flame eyebrow, music brackets, and crossed bands motifs as *pars pro toto* elements of a sky deity, which is avian- and serpent-like at times. The were-jaguar set includes the double-line break and cleft head motifs as elements connected with the cleft in the earth or, in other words, the place of emergence of the Maize God (Flannery and Marcus 1994). During the San Jose phase the first set of signs was common on Leandro Gray ware while the second set occurred almost exclusively on Atoyac Yellow-white ware. However, the distribution of such symbols and ceramics also could follow status boundaries among different households within the same community.

The evidence of status differentiation in artifacts, burial, or other contexts during the pre-Mamom phases is very elusive in the Maya lowlands. The structures associated with these ceramics at Cahal Pech, Blackman Eddy, and some of the ritual caches from this period, as at Uolantun (Puleston 1973) and Seibal (Willey 1970a), indicate few if any status distinctions within early communities. The high-quality of the ceramics and their symbolic decorations may be the one indication that they were restricted in use to a small group within the community.

The symbols on pre-Mamom ceramics are direct antecedents to iconographic symbols used to identify rain and other deities in later Preclassic and Classic period ritual art. In Preclassic contexts, the deity is actually combining avian and serpent elements and has been named the Principal Bird Deity by scholars (Bardawil 1976). It is a deity of the sky, mainly a solar deity, sometimes equated to Itzamnaah, but also related to other celestial elements such as rain and lighting. The so-called shark tooth is actually a representation of a bloodletter, a symbol that in later Maya iconography refers to the ritual of bloodletting to venerate deities and ancestors. The k'an cross, cleft head, double-line break motifs, and related variants of the so-called were-jaguar complex are separate elements that refer to the four parts plus the center of the Maya cosmos. The k'an cross is also an opening in the earth and between the worlds of the living and the supernatural. Seen in profile view, the k'an cross is sometimes depicted in abstact forms as a v-shaped cleft or a step-fret motif. The Cival jade offering (described below) is a good compendium of k'an cross symbolism. As a whole, these motifs represent all the parts of the cosmos, its center-opening and as such the birthplace of the Maize God. Finally, the mat motif is a well-known Maya and Mesoamerican symbol of political power. These sets of motifs (sky and earth/maize) appear prominently in Late Preclassic and Classic period iconography with minor stylistic modifications on monumental scultpture and other permanent media (Estrada-Belli 2006b). One set of contexts in which they appear are cross-shaped offerings such as the jade axe offerings of Seibal and Cival that also include other objects with maize symbolism. Other examples that combine Maize God and avian motifs closer in time to these are the pectoral worn by the ruler on Cival Stela 2 and the headdress worn by a Maize God figure in Cival's Mural 1 (Estrada-Belli 2006b) and on the West Wall of the San Bartolo mural depicting a coronation ceremony of the Maize God himself (Hurst 2005; Saturno, Stuart, et al. 2005). Avian and serpent imagery is also prevalent on friezes and "mask" relief sculptures at Nakbe, Cerros, Uaxactun, and other sites where they identify the deity to which the pyramid—and thus the temple—are dedicated. These themes, the avian head or head with serpent-head wings, are repeated on the friezes of Classic-period temple buildings as well as on carved stelae as the ruler's



6.4. A sample of ceramic forms and incised motifs of pre-Mamom ceramics from the Holmul region.

headdress and are the most common symbols of royalty (Andrews 1995; Freidel and Schele 1988a; Hansen 1992a).

In sum, while we lack direct material evidence for status distinctions among the earliest pottery-using lowland Maya at the beginning of the Middle Preclassic (1100–850 BCE), the motifs depicted on pre-Mamom ceramics include a set of symbols that evoke the same celestial deities, the solar and rain gods related to the birth of the Maize God, which later will be associated with elite and specifically with royal ritual art. The wide geographical distribution of the early symbols across Mesoamerica reflects a set of religious beliefs that pre-dated social differentiation but were eventually singled out by emerging elites within narratives that legitimized the concentration of power in the hands of rulers. Because the similarities in form and decoration are greater among groups within the Maya lowlands than with any outside region, these similarities cannot be due to a flow of foreign populations or ideas into the area, but to spontaneous processes. The contextual evidence for these symbols at lowland sites suggests pre-Mamom ceramics, at least initially, were used as special ritual goods within communities as part of the processes in which status differentiation might have been developing or expressed on permanent media. In this view, the first appearance of ceramics in the Maya lowlands at ca. 1000 BCE should be seen not as the first sign of peasant migrants entering the region but as evidence of social ranking.

SUDDEN CIVILIZATION? HIGHLAND-TO-LOWLAND MIGRATIONS "RELOADED"

The University of Pennsylvania Tikal project from 1957 to 1970 (Shook 1957; Coe 1990) produced the greatest amount of data on the Preclassic of any other project. The massive North Acropolis trench exposed temples and tombs that preceded the accepted beginning date of the Classic period and pointed to the Late Preclassic period as the phase of most rapid development and artistic manifestations of Maya civilization (W. Coe 1965a). Tikal's data were complemented by other large-scale excavations at Altar de Sacrificios (Willey 1973a) and Seibal (Willey et al. 1982) and large-scale surveys in the Belize River valley (Willey 1965) providing further evidence of the antiquity of the elements of Maya civilization in the lowlands but also added new fuel to migration theories on the origins of Maya civilization in some respects.

At that time, masonry architecture, polychrome ceramics, and hieroglyphic writing were used as the defining characteristics of Classic Maya civilization (Morley 1946). Vaulted temple buildings, however, had been found in Preclassic contexts in Tikal's North Acropolis. These were lavishly decorated with mural paintings of ancestral figures, clearly anticipating dynastic iconography of the Classic period. In addition, richly furnished tombs were found in the plazas between these early temples suggesting that the antecedents to Classic Maya civilization existed centuries prior to the appearance of carved monuments with hieroglyphic texts and Long Count dates.

Tikal's North Acropolis excavations produced detailed, abundant, and consistent data that have since been held as evidence that the institution of kingship made its first appearance shortly prior to the end of the Late Preclassic period. Today, as thirty years ago, many scholars view the Late Preclassic period as an era of rapid growth leading to the so-called crystallization of divine kingship and other state-level institutions in the 1st century of the Christian Era (Adams and Culbert 1977; Willey 1977). As a corollary of this now problematic assumption, the passage from village farming communities to Classic Maya civilization was seen as a sudden phenomenon. It had allegedly happened after a long period of little or no change, the Middle Preclassic period from 1100 to 400 BCE. Once again, there were attempts to find the sources of rapid change outside of the lowlands.

Polychrome ceramic decoration was thought to be a key stylistic and technological innovation that appeared at the end of the Late Preclassic period and became the hallmark of Classic Maya civilization. It was believed to be an important indicator if not a factor of significant changes in the structure of lowland Maya society, in spite of the existence of equally sophisticated techniques of ceramic decoration centuries earlier. The earliest set of lowland polychrome ceramics were first excavated at Holmul in 1911 and thus named the "Holmul I" style (Merwin and Vaillant 1932). The polychrome decoration consisted of abstract symbols and stylized supernatural forms in red, black, and yellow on an orange slip background. New vessel forms included bowls, dishes, and vases with mammiform supports, and a *Z*-angle profile. At first, both painted style and vessel forms appeared unrelated to previous types of Preclassic decoration, which favored monochrome slips and simpler forms. James Gifford hypothesized that new people had arrived in the Belize River valley bringing the Holmul I ceramic assemblage or knowledge of it from some other region (Willey and Gifford 1961). The introduction of such new status objects would parallel the rapid increase in social distinction within local communities evident from architecture and burials. With it, the knowledge of writing and other manifestations of Classic civilization also made their appearance in the lowlands.

Increasingly, the Holmul I ceramic style appeared to be irregularly distributed in the lowlands and to cluster mostly in eastern Peten and Belize (Pring 1977). To the south, mammiform vessels and polychrome decorations were found at Altar de Sacrificios and Seibal and marked a separate cluster of this style (Shook and Smith 1950). Vessel tetrapod forms and orange slip decorations somewhat related to the lowland style were known from the Guatemalan highlands. Based on similar stylistic details and antiquity, Sharer and Gifford (1970) suggested that the polychrome style had been brought into the lowlands by groups of highland migrants, perhaps from the overpopulated centers of Kaminaljuyu and Chalchuapa. The new wave of migrants was said to have followed the same routes as the much earlier migrant farmers who brought Xe ceramics and agriculture to the lowlands. This was believed to be a response to increased competition over resources by an overextended highland population, as the size of Kaminaljuyu, Chalchuapa, and other southern area sites attested.

Aside from highland overpopulation, another possible stimulus for this migration was the eruption of the Ilopango volcano in El Salvador that could have sent waves of refugees north and west (Sharer and Gifford 1970). The date of the volcanic eruption has been since reassessed at 400–550 CE (Dull et al. 2001), making it an unlikely cause. This re-dating was perhaps one of several deadly blows to the migration theory. Subsequently, in-depth ceramic analyses determined that the early polychrome style did not constitute a complete complex but rather a set of fine-quality and special function types that complemented the later phases of the Late Preclassic Chicanel ceramic complex (Brady et al. 1998). More significantly, petrographic analyses of paste recipes (Callaghan 2008) revealed that in order to create the new polychrome style, long-established Late Preclassic clay recipes were used. It was therefore unlikely that this style and technology had been brought into the lowlands as a set and more likely to be a local development perhaps inspired by contemporary highland examples.

The period in which the Holmul I style was used, from 50 to 250 CE bridging the transition from Preclassic to Classic periods, was believed to be the time in which Classic Maya civilization "crystallized" (Gifford 1965), which rendered essential a clear understanding of its place of origin. However, the significance of the cultural and social changes taking place during this transition were more assumed than borne out by hard data. Even in the face of widespread ceramic influences from the highlands, Gordon Willey (1977) pointed out that the Late Preclassic period was a time of true growth in population as well as in cultural complexity in the lowlands. The Holmul I style ceramics emerged at the end of this period and in connection with no population increase but rather a decline. Willey also noted that some areas such as the northern plains (Dzibilchaltun) experienced a population decline, while other areas continued their progress towards the early Classic with a total lack of Holmul I style ceramics (Ball 1977).

"Protoclassic" or Holmul I style ceramics were clearly present at Tikal (Culbert 1977). The highland-inspired polychrome techniques and the Usulutan-like (highland-inspired) resist or double-slip painting technique at Tikal marked a gradual increase in sophistication and in overall status differentiation beginning in the Late Preclassic period. Willey (1977) believed, as did Morley before him (1946), that the existence of early carved dates (Cycle 8, i.e., pre-376 CE) primarily in the Tikal zone was of paramount importance for an understanding of the process of development of Classic Maya civilization. While the "idea" of the stela cult and polychrome decoration may have come from the highlands, he believed these were innovations of a local emerging elite centered at Tikal. Once formed, the Tikal kingdom assumed an expansive mode, attempting to build an "empire" in the Peten. This would have explained the introduction of elite innovations at Tikal first, such as the carving of early monuments and the radiating distribution of early dated monuments at sites in the central Tikal zone and surrounding areas to the east (Holmul, Xultun, and Belize), west (Usumacinta region), and south (Pasion region). This zone also largely overlapped with the spotty distribution of Holmul I ceramic styles, while also including northern Belize, as Hammond noted (1977), probably because of its strategic resources and river routes to the sea. Long-distance trade connections were also believed to be radiating out of Tikal during the Protoclassic and Early Classic period due to the evident increased complexity of the Tikal social system (Willey 1977).

It was probably not coincidental, Willey (1977) noted, that the earliest signs of Teotihuacan interest in the Maya lowlands were found at places along the lowland routes, such as Altun Ha on the Belizean coast (Pendergast 1971). Possibly, he suggested, the distant central highland city of Teotihuacan could have had an influential role in the formation of Classic Maya states.

Sanders and Price (1968) and Spinden (1928) had proposed earlier that Classic Maya society was a case of secondary state formation stimulated by the area of primary state formation in Mesoamerica, the Central Highlands of Mexico. This process was viewed from an evolutionary perspective. They postulated that Late Preclassic centers such as Kaminaljuyu, deemed to be capitals of Maya chiefdoms, were transformed into state-organized societies after the arrival of elite traders from Teotihuacan. Similarly, subsequent incursions of Teotihuacan traders and accompanying warriors into the Peten region would have transformed the Preclassic Tikal chiefdom system into an early Classic Maya state. The evidence of Teotihuacan-style temple architecture and richly furnished tombs in Early Classic Kaminaljuyu (Kidder et al. 1946) was interpreted as a enclave of foreign elite merchants at that site. Similarly, the mounting evidence of Teotihuacan-style architecture and ceramics at Tikal inspired many scholars to envision a strong Teotihuacan influence on the locals at the opening of the Classic period (W. Coe 1965a; Coggins 1975; Proskouriakoff 1993). Later it would be found that Teotihuacan artifacts and architectural styles at Tikal predated those of Kaminaljuyu by perhaps a century, seriously challenging this hypothesis (Laporte and Fialko 1990; Braswell 2003b).

THE TIDES TURN FOR THE PRECLASSIC MAYA

Although the multiple theories suggesting that lowland Maya civilization was spawned by migrations from the highlands had met their demise, interregional interaction remained an important mechanism for understanding developmental processes within the Maya area and more generally within Mesoamerica. Survey and excavations in the northern Maya highlands documented the distribution of Preclassic occupation in the Alta and Baja Verapaz, regional development in the key Salama Valley, and defined overland routes connecting the southern highland and lowland regions. This evidence highlights the importance of Preclassic highland-lowland interaction to the growth and development of both regions (Sharer and Sedat 1973, 1987). At the northern end of the Maya lowlands in modern day Yucatan, an area that was previously thought to be devoid of Preclassic occupation revealed some of the densest concentrations of settlement beginning in the early Middle Preclassic and continuing in the Late Preclassic period, including early ceremonial centers such as Xtobo (Anderson 2011; Andrews et al. 2008; Glover et al. 2008; Rissolo and Amador 2004). Moreoever, the role of regional and interregional interaction in the development of lowland Maya civilization took on new meaning as the monumental architecture and carved art (stylistically linked to the Maya highlands and Pacific coast regions) of El Mirador and other large Preclassic centers in northern Guatemala were uncovered in the last 20 years of the 20th century (Estrada-Belli 2011).

When Ian Graham first mapped the site of El Mirador in 1962, the site's largest pyramid, the Danta pyramid, was believed to be a natural hill and was used as a navigational landmark by airplane pilots. For many, it was difficult to fathom that the largest Maya center had existed entirely before the Classic period. Excavations by the Peabody Museum of Harvard University first in 1970 (Marcus n.d.), then by Brigham Young University (Matheny 1987; Matheny and Matheny 2011), and again by Harvard University (Demarest 1984) demonstrated it beyond any doubt. Research at El Mirador and nearby sites continues to date led by Richard Hansen/ FARES, providing staggering evidence of the complexity of Preclassic Maya society (Hansen 1990, 1998, 2005; Hansen and Balcarcel 2008) predating any influence from the highland regions of Guatemala and Central Mexico.

Ian Graham's El Mirador map showed a vast ceremonial core stretching on an upland area for over 2 km from east to west and more than 1 km from north to south. This area was completely paved and punctuated by massive temple complexes. The largest of these is the 73 m high Danta complex at the east end of the site. The 53 m high Tigre Complex stands at the opposite end of a perfect E-W axial line crossing the site. A large moat and embankment encircles the central part of the site, as well. As many as 15 pyramid complexes at El Mirador follow the so-called triadic arrangement on east-west (such as Danta and Tigre) or north-south axes (such as Monos and Tres Micos). An elevated complex of temples and other buildings dominates the central area and is known as the Central Acropolis. To the north of this is one of the largest E-Groups in the Maya lowlands—the Leon Group. At the east end of the site was the Danta temple-pyramid complex, the largest at the site, and the largest by volume, measuring 600 m at its base, in the ancient world.

El Mirador was not only a Preclassic city of unprecedented dimensions, it was also the center of a network of large centers connected by a system of paved causeways within a large area now known as the Mirador Region. The causeway system itself highlights the central role played by the massive city of El Mirador, as it integrated many large centers around itself to form perhaps the largest rather than the first political system in Maya history during the Late Preclassic period (see below; Hansen 2005).

The Mirador Region centers of Tintal, Wakna, El Porvenir, La Muralla, Zacatal, and La Florida reached their building apex during the Late Preclassic becoming the largest centers in the lowlands at the time. Tintal, the largest of these, extended over an area about one third of El Mirador's ceremonial core. All these centers were suddenly abandoned, as was El Mirador (Hansen 2005), at the onset of the Classic period. Most of them remain largely unexplored today (although see Hansen, this volume) and are testimony to how much more there is to be known about the Preclassic period.

An even more surprising new fact was added to our evidently limited knowledge of the Preclassic lowland Maya when it was found that ceremonial architecture at Nakbe largely predated that of El Mirador, being mostly attributed to the late Ox (Mamom) phase (600–350 BCE; Hansen 1992a, 1998). The earliest public buildings at the site, the ball court, and the E-Group plaza date to that period.

In Richard Hansen's (2005) view, several centers had emerged in competition with one another in the Middle Preclassic period in the Mirador Region, and Nakbe perhaps was the largest among them. The relative homogeneity in the ceramics of this epoch, the Mamom-phase pottery recognized by most archaeologists, may actually reflect something that ran deeper than stylistic emulation: increased political integration in the Maya lowlands at this time, with Nakbe as the most important ritual center in the Mirador Region, possibly extending its religious and political influence elsewhere in the lowlands. It seems reasonable to propose that this process was a preamble to the more evident centralization and integration that is evident in architecture, ceramics, and ritual practices during the Late Preclassic period. El Mirador seems to have overshadowed all other centers and extended its trade connections far and wide across the Yucatan peninsula as reflected by the homogeneity of the Chicanel-style pottery and possibly by the spread of the Triadic Group pyramid complex across the region.[1]

Other large centers with Late Preclassic monumental architecture became known outside of the Mirador Region. These were Cerros (Freidel 1982) and Lamanai (Pendergast 1981) in northern Belize, Becan in southern Quintana Roo (Webster 1976), San Bartolo (Saturno, Taube, et al. 2005a) and Cival in northeastern Peten (Estrada-Belli, Bauer, et al. 2003; Estrada-Belli, Grube, et al. 2003) and El Palmar to the west of Tikal (Houston et al. 2010). All these sites display a primary Late Preclassic occupation followed by permanent or temporary abandonment. Some of these—Cerros, Becan, and Cival—feature large defensive works such as moats or stone walls and palisades (Fig. 6.2, 6.5). In addition, significant Late Preclassic building components were only recognized after deep excavations at Seibal (Willey et al. 1982), Altar de Sacrificios (Adams 1971), Calakmul (Carrasco and Colón González 2005), Rio Azul (Adams 1999), Yaxha, Naranjo, Caracol (Chase and Chase 1999), and Cahal Pech (Awe 1992).

The political geography of the Late Preclassic Maya lowlands and the great uniformity in architecture and art were without a doubt the result of intensive interaction across the Yucatan Peninsula. The similarities in art and architecture and the great homogeneity of the Chicanel phase ceramics across lowland regions combined with El Mirador's sheer size have led Hansen (Hansen and Guenter 2005) to speak of El Mirador as the first Maya state. While this point is currently debated, the El Mirador massive temples, carved monuments, and hieroglyphs seem at least to demonstrate that the Preclassic Maya state was no longer a chimera, and Preclassic civilization no longer a contradiction in terms (Hammond 1992; Sharer 1992).

THE RISE OF THE FIRST LOWLAND STATES

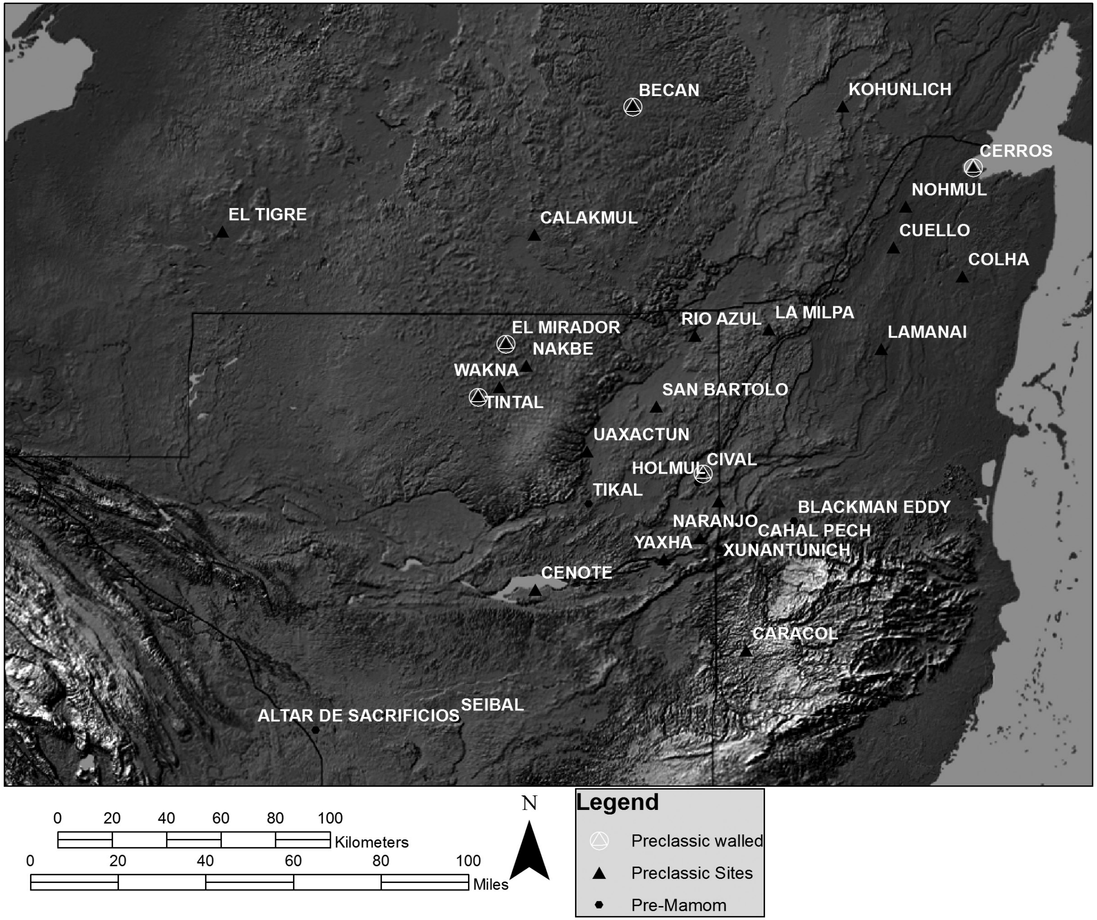
Until recently, some scholars held that the lowland Maya lacked several important characteristics of "civilization" prior to 300 CE. The most important trait is kingship or some other state-like centralized political institution. The key problem has been the lack of direct evidence of the existence of Preclassic kings, mainly royal tombs. Up to this point it has been customary to see the Classic period custom of burying rulers in richly furnished tombs below funerary temple-pyramids as a universal characteristic of kingship. When such centrally located tombs failed to appear at Preclassic sites, in spite of intensive excavation, we concluded that the Preclassic

Maya must have had some other form of government that did not require lavish interments of the deceased ruler, such as chiefdoms or corporate systems. It was thought that they had been ruled probably by a class of religious leaders, a theocracy, such as the one that was postulated to have ruled over Classic period Teotihuacan (J. Thompson 1970) or by a system similar to the *multepal*, an assembly of lineage leaders that ruled northern Yucatan's statelets prior to the Spanish conquest (Roys 1957:6; Marcus 1993:118–20). According to this view, the Maya were ruled by assembly until the end of the Late Preclassic period when kinghip was introduced. The replacement of a form of corporate system by an individualized system of governance would certainly represent a major "conjuncture" with widespread ramifications within a society in economic, ritual, and power relations that should be accompanied by visible changes in the material record (Knapp 1992). But the questions remain as to what changes did take place in the archaeological record at the onset of the Classic period and what do they mean?

PRECLASSIC ROYAL BURIALS AT TIKAL AND THE SEARCH FOR THE DYNASTY'S FOUNDER

Once again, the 1960s were a great decade for Maya archaeology. The University of Pennsylvania Tikal excavations were turning up evidence that challenged any earlier assumption about the lack of individualized rule in Maya society prior to the Classic period (Coe 1990). Elaborate Preclassic burials and tombs were placed in axial positions under the basal platform of temples, as if the latter served for worship of the interred individual. The earliest burials in this architectural complex date to the Middle Preclassic, and many more elaborate tombs appeared in the Late Preclassic period. Among them, Burial 85 dating to about 100 CE was outstanding for its rich furnishing and has been identified with the Tikal dynastic founder Yax Ehb Xook (Coggins 1975; Coe 1990; C. Jones 1991; Martin and Grube 2000; Martin 2003, and this volume).

This tomb lies at the bottom of a deep (2.5 m) shaft below a temple structure (Str. 5D-sub2) reaching into the bedrock. In the vault was a bundled individual with a jade mask with the royal *hun* diadem and 26 vessels. Some of these were decorated with Usulutan resist technique and modeled effigy spouts. Some of them appear to be imports from Kaminaljuyu



6.5. Map of Maya Lowlands showing major Preclassic sites mentioned in the text and presence/absence of defensive works.

(Culbert 2003). There were also shell and jade ornaments, stingray spines, and codex-like gesso fragments. Interestingly, while this tomb was certainly outstanding for its wealth, it was not associated with a period of major construction or remodeling of the ritual space of the acropolis. Instead it was one of many high-status burials placed in this location since the Middle Preclassic (Coe 1990).

Burial 166 contained an old woman and a bundled young woman with 21 elaborate vessels (Culbert 1993). This could have been a queen and/or queen mother interment related to Burial 85. Another predecessor of Burial 85 was interred on the eastern side of the acropolis plaza at roughly the same time (Burial 167), or shortly prior to 100 CE. In it were three individuals—a male, a female and a child with rich offerings. These tombs of the end of the Late Preclassic period were but a sample of several earlier interments in this location within the main acropolis. No significant breaks in the layout or volume of the North Acropolis around 100 CE occurred when the "founder" took the throne. Instead, the elites buried in the North Acropolis were the inheritors of high-status from a long line of rulers, reaching back at least to the beginning of the Late Preclassic.

Indeed, after the deposition of Burial 85 the North Acropolis was dramatically improved by construction some time after the founder's death, signaling a change in scale of ritual buildings (Coe 1990). Burial 125 held one of the rulers responsible for this period of prosperity. Elsewhere at Tikal, the Mundo Perdido plaza received important renovations and began to accommodate high-status burials after 200 CE (Laporte and Fialko 1990).

Given these archaeological facts, it is not clear why later kings referred to Yax Ehb Xoc as the dynasty founder. It is possible that the period following the founder's reign represents the beginning of a time of unprecedented prosperity at Tikal rather than a *conjuncture* in which major changes were made to the ancient Maya system of governance. The point here is that we should probably not take this date or period as a watershed moment in the development of Maya political systems, but in Tikal's history specifically. Indeed the epoch of much more significant changes or the *conjuncture* in the record of the North Acropolis must be identified with the placing of the first elite burial and erection of the first platform atop it, probably to venerate a deceased ruler, in the Middle Preclassic period (Coe 1990).

PRECLASSIC ROYAL BURIALS AND THE 100 CE "CONJUNCTURE" ACROSS THE LOWLANDS

Outside of Tikal, elaborate burials have been found at many Preclassic sites. There is however an overall scarcity of well-furnished burials such as Tikal Burial 85 before ca. 100 CE, in spite of an abundance of other impressive traits of complexity such as monumental architecture and royal iconography that predate such tombs. Most glaring is the absence of burials from some of the greatest sites of this period, such as El Mirador. However, Late–Terminal Preclassic tombs have been found at Wakna, Tintal, Cival, Seibal, Rio Azul, Holmul, and Altun Ha, among the best known (Krejci and Culbert 1995; Estrada-Belli 2004b). A number of relatively richly furnished Preclassic burials also come from some of the smaller sites of this period. Not surprisingly, the smaller lowland sites have received more research than the larger ones of the central lowlands mostly because of their size and accessibility (northern Peten, and adjoining areas of Campeche and Quintana Roo, Mexico, remain relatively inaccessible).

One must not rule out the possibility that different burial practices may have been in operation in the centuries prior to the end of the Preclassic period that did not require the construction of a temple-pyramid above the burial and the arrangement of offerings on the scale seen in the Classic period. There is a good possibility that generations of Preclassic rulers were buried in residential contexts in relatively elaborate settings, but these remain undetected under less obvious constructions, as is the case in smaller sites. Placement of a ruler in a public ritual area would constitute an exception to the norm during the Preclassic period.

Some of the best examples of early burials of high-ranking individuals come from residential contexts at Cuello, Belize. Here, indicators of social status have been found in burials dating to the earliest phases of the Middle Preclassic (1000–800 BCE) and include jade and shell ornaments associated with children as well as adults. Several high-status burials appear in a sequence in specific residential loci over periods of time. Among them is Burial 160 (500–400 BCE). While the cist and the accompanying vessels were simple, there were deer bone tubes incised with the royal mat design and a human cranium fragment fashioned into an effigy pectoral. The locus of these burials had special significance for this community which centuries later erected a ceremonial platform supporting a small pyramid temple above it (Hammond et al. 1992).

The recent discoveries of rich burials at San Bartolo and at K'o in northeastern Peten offer significant examples of Preclassic elite mortuary practices. Both were found under residential platforms (Pellecer 2006; Tomasic and Bozarth 2011). In the San Bartolo burial, a cist sealed by horizontal slabs contained six vessels, including an unusual orange effigy censer and effigy bowls decorated with Usulutan-style wavy lines, similar to examples from the Kaminaljuyu area, and other plain Late Preclassic vessels. With the body was also a small jade statuette similar to "royal" diadem jewels found at Cerros and Nohmul, Belize (Freidel et al. 2002; Justeson et al. 1988). The K'o burial, dated to 350 BCE by C-14, was in a double-chambered chultun under a Late Preclassic house platform. The interred was accompanied by eight vessels, including a black effigy censer of an ancestor wearing the foliated *hun* jewel, symbol of royalty in the Classic periods. The special objects from both interments, the figurine and the censers, depict royal insignia worn by the king portrayed in the San Bartolo West Wall Mural around 100 BCE.

SITE PLANNING, MONUMENTAL ARCHITECTURE, AND COSMOLOGY OR THE MAKING OF MAYA CIVILIZATION

In addition to monumentality, large-scale site planning and cosmological arrangements have been attributed to state-level societies. One obvious commonality in the layout of lowland sites with undisturbed Late Preclassic architecture, such as El Mirador, Tintal, Nakbe, Wakna, Cival, San Bartolo, and Cerros among many, is the general arrangement along an E-W axis. That pattern was maintained and expanded upon during centuries of building activity. A primary east-west pattern also has been noted at early sites in neighboring regions of highland Chiapas, which has engendered some discussion of migrations or highland influences on the early developments of lowland Maya civilization (Lowe 1977, 1981, 1989a)—a point to which we shall return.

Another commonality of Preclassic sites, especially in the central lowland region (Peten, southern Campeche, Quintana Roo, and Belize), is the presence of two distinct types of building arrangements. These are known as E-Groups and Triadic Groups and are known to have served different ritual functions. Both have widespread distribution at large and small sites. E-Groups are generally formed by a western pyramid with radial stairways and an elongated platform with one or three small substructures on the east side of the plaza. Their name is derived from the first group of this kind to be recognized—Group "E" of Uaxactun (A.L. Smith 1950). Triadic Groups are normally situated on an elevated platform and are formed by a main pyramidal temple flanked by two smaller ones facing each other. The most common orientation of Triadic Groups is west-facing, although orientations to the other cardinal directions are not uncommon, especially at sites where multiple Triadic Groups are present (such as El Mirador, Nakbe, Cerros, and Cival).

E-Group architectural arrangements appear to have greater antiquity than the Triadic Group. Both types appear to be expanded upon during the Late Preclassic and Early Classic periods. But the earliest examples of E-Groups have been dated to the Middle Preclassic period (ca. 800–600 BCE) at Nakbe, Tikal (Mundo Perdido), Cival, and Cenote (Hansen 1998; Chase and Chase 1999). Triadic Groups, on the other hand, appear first in the Late Preclassic period (e.g., at El Mirador, Nakbe, Tintal, Wakna, Tikal, Uaxactun, Calakmul, Caracol, Lamanai, Cerros, Cival, and many others) and are also known in the northern Yucatan region (Hansen 1998; Andrews 1965; Anderson 2011). The greatest number of Triadic Groups are found at El Mirador, where the largest in size can also be found.

Triadic Groups are commonly found at the extreme ends of a site's axial lines. E-Groups tend to be located most commonly near the center of the site's ceremonial area (e.g., at El Mirador, Tikal, and Cival), but also occur at the axial extremes (e.g., Nakbe). Often, E-Groups are found to occupy the most prominent and broad hilltop and form the central focus of later site planning for ceremonial centers and communities.

A good example of coherent site orientation and planning followed throughout Middle and Late Preclassic times is found at the recently mapped center of Cival, Peten. Its ceremonial core occupies an artificially leveled 0.5 km^2 hilltop (Fig. 6.2). The site core is dominated by four major pyramidal complexes at axial extremes. The tallest is the eastern Triadic Group (Group 1, 33 m high), followed by the North Pyramid (21 m high), the West (Structure 20, 19 m high), and South Pyramids (12 m high). At the very center of the orthogonal axes connecting these groups is the E-Group plaza. Its western radial pyramid (18 m high) faces a 130 m long eastern platform supporting an outset central building. Two smaller (4 m high) rectangular buildings close the north and south ends of the plaza.

Just to the north of the plaza is a ball court which was first built in the Late Preclassic and follows the general north-south axis perpendicular to the E-Group's axis. Deep excavations have documented that the entire area enclosed by these complexes was leveled by massive amounts of fill in the Middle Preclassic period (probably ca. 800 BCE), followed by a series of subsequent floors laid out in the Late Preclassic period.

To the north on a separate knoll is a smaller E-Group plaza with an 8 m high western pyramid facing a 48 m long platform. This complex was built in the Late Preclassic period as the site expanded out from the initial main hill core to occupy what was previously a residential site.

The map shows that Cival's east-west axis was followed throughout the Late Preclassic by most residential and ritual construction. The orientation and patterned distances between major buildings along the site's axes denote consistent planning.

In simplified form, the E-Group's western-pyramid-facing-eastern-platform layout is also seen outside the lowlands. Known early Middle Preclassic examples occur in highland Chiapas (e.g., Chiapa de Corzo, Finca Arizona, San Isidro) (Lowe 1977, 1981; Chapter 5, this volume) and can even be detected in the layout of some sites in Pacific coastal and highland Guatemala (e.g., Takalik Abaj) (Popenoe de Hatch 2002a). Once more, similar traits have been taken to reflect possible migrations or diffusion from highland to lowland regions (Lowe 1981, 1989a; Clark and Hansen 2001). However, these occurrences also signal interregional interaction, and as research progresses there are increasing indications of the originality of lowland Maya ritual site planning and of the greater antiquity of E-Groups in the lowlands.

THE ANTIQUITY OF E-GROUPS, PUBLIC RITUALS, AND ROYAL SYMBOLS

It is the uprecedented wealth in ritual offerings and the scale of public works at Cival that are currently the best indicators of the emergence of centralization of ritual and power early in the Middle Preclassic period. Cival's earliest E-Group plaza floors document one of the largest and oldest such complexes in the lowlands (Estrada-Belli 2002, 2003; Estrada-Belli, Grube et al. 2003). The first version of this E-Group's eastern platform was created by modifying the bedrock surface of the hilltop on which it is located. Altogether, the Cival eastern platform (Structure 7) and its central outset structure (Structure 12) were remodeled six times, the last two dating in the Terminal Preclassic period 0–250 CE.

At Cival, the northern and southern sight lines of the E-Group point to sunrise on the days of the passage of the sun through the zenith (May 9, August 3) and the antizenith (February 1, November 12), an alignment shared only with a select few other sites of great antiquity in the lowlands (Aveni et al. 2003). The first passage of the sun at its zenith in the southern lowlands roughly corresponds with the advent of the rainy season, around May 10. The second passage of the sun at its zenith occurs on August 2, in connection with the arrival of a second wave of monsoons in the Maya lowlands. Through the use of these devices the lowland Maya were able to maintain the congruence of the ritual *tzolkin* and solar *haab* calendars with the pace of the seasonal and agricultural cycles (Girard 1966). Thus, E-Group plazas with their buildings aligned to the cardinal position and their E-W alignments underscored the quadripartite construct of the calendar and served as the cosmological central locus for rituals related to it. Consistently, that alignment once established with the construction of the E-Group in the Middle Preclassic was carefully followed in subsequent building episodes and accompanied by the placement of offerings. The recurring rituals reinforced the importance of these human-made spaces as reflecting the Maya's immutable cosmological landscapes and vision.

The Earliest Public Rituals

Evidence of public rituals of great antiquity is often found in E-Groups. The earliest offerings come in the form of cists, stone boxes, or lip-to-lip vessel pairs dating to the Middle Preclassic period. These offerings are often placed along the group's east-west axis. Centuries later those same locations were chosen to erect the first carved monuments, as at Tikal and Uaxactun (Laporte and Fialko 1990). In the Early Classic period, the E-Group remained a site's primary ritual space where the commemorations of *k'atun* cycle completions (k'atuns 8.14 through 8.17) were celebrated on monuments with a ruler's dedicatory inscription for the first time.

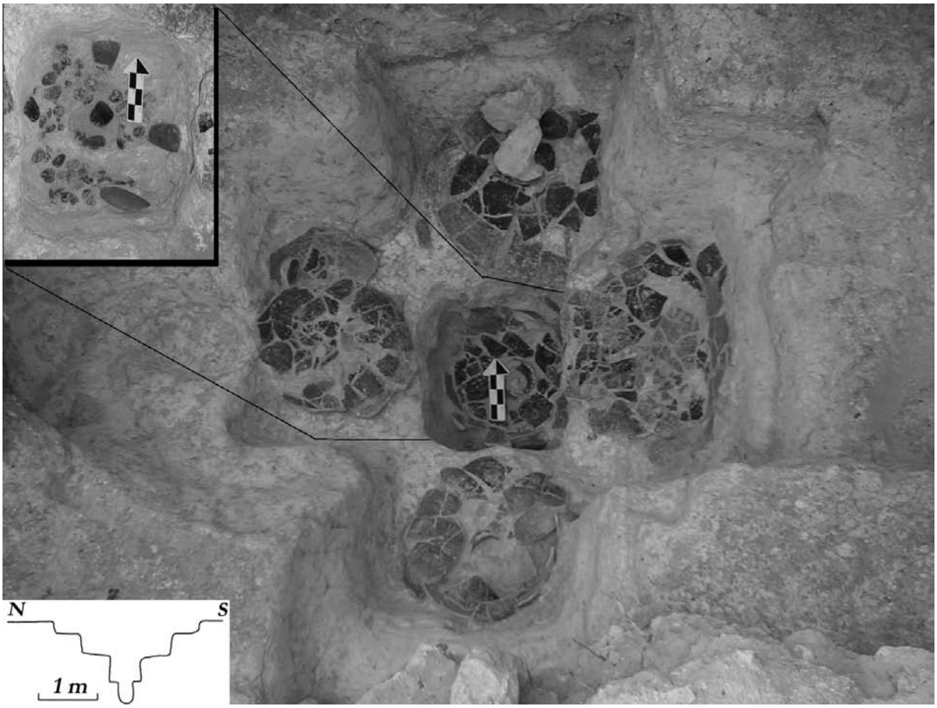
The earliest evidence of ritual activity in Cival's E-Group dates to sometime between 800 and 600 BCE.[2] A cache of 5 water jars, 5 upright celts, and 109 jade pebbles was carefully placed in a three-level k'an cross–shaped pit dug into the bedrock (Figs. 6.6, 6.7; Estrada-Belli, Bauer et al. 2003; Estrada-Belli 2006b). This cache included an extraordinary amount of wealth and complexity of elements for this time period. The second event was the burial of a large defaced stela across the centerline of the eastern platform, also during the Middle Preclassic period. Subsequently, at the beginning of the Late Preclassic period, a low rectangular platform was built on the axial line abutting the eastern platform's stairway. A carved stela (Stela 2) bearing the striding image of a ruler was erected at the center of the platform (Fig. 6.8). Subsequently, the platform was enlarged and three large timber posts were placed in cardinal arrangement around the stela (Fig. 6.9).

The symbolism of the early offering (Cache 4) in the Cival E-Group plaza recalls the cardinal placement of the five rain gods above the primordial sea (the jars), the central position of the Maize God in the universe (the jade axe/corn symbols) (see Taube 2005), and the role of water to give life to the Maize God as the basic ordering elements of the Maya cosmos. Maize God iconography is also present in the avian pectoral worn by the ruler on Stela 2.

The Maize God as the *axis mundi*, the giver of sustenance to the people, was the ideal alter-ego for Classic Maya rulers as it was manifested in royal media and paraphernalia. But now we see it first expressed in the Middle Preclassic period at sites such as Cival, and at E-Group plazas across the lowlands. A slightly earlier example of this type of cache (900–700 BCE) is found at Seibal (Willey 1970a). Earlier expressions of this cosmology related to the life cycle of the Maize God, rain, earth, and sun can be found on the earliest lowland ceramics of 1000 BCE.

The Earliest Monumental Art and Royal Ideology

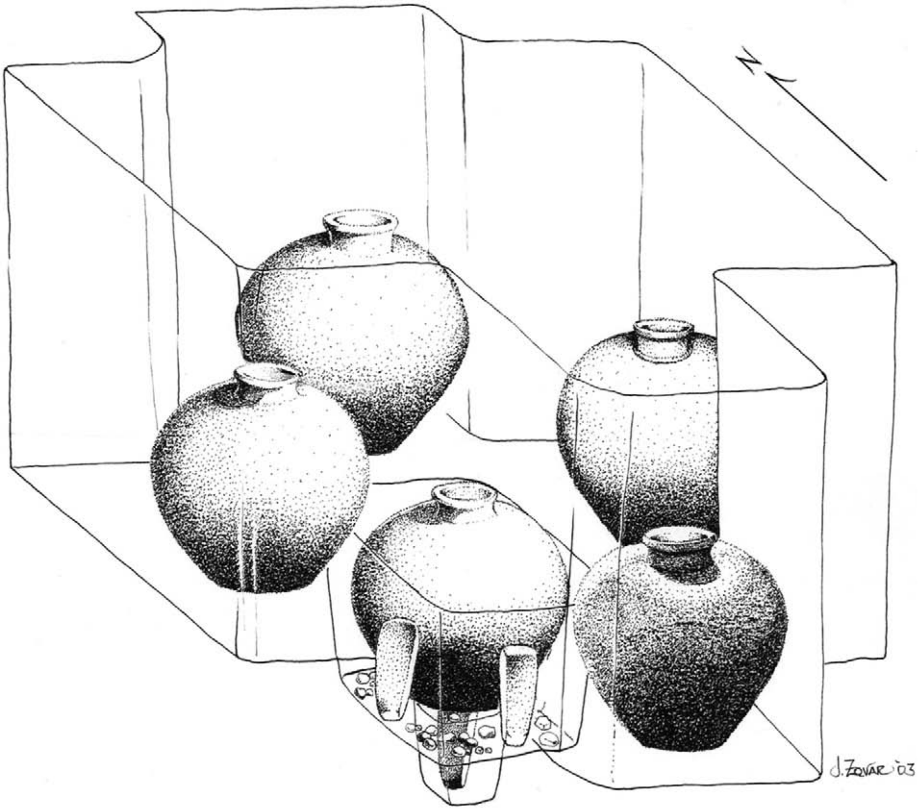
Cival's Preclassic Stela 2 stylistically predates the earliest monuments from Nakbe and El Mirador (Fig. 6.8; Estrada-Belli 2003). A vessel found in its offertory cache suggests a date of 300–200 BCE. It is carved in simple low-relief outlines. The figure wears a bird-head pectoral with three plaques decorated with incised diagonal lines indicating that in reality they would be fashioned in jade. This avian motif is worn by rulers as a pectoral or a headdress on numerous Preclassic monuments, at Kaminaljuyu, Abaj Takalik, in the Maya highlands, on the Pacific coast, and the Gulf coast of Mexico (La Mojarra, Stela 1) (Parsons 1986; Winfield Capitaine 1988). It is also worth noting that this stela's tapered shape recalls upturned jade



6.6. Plan view and details of Cival cache four.

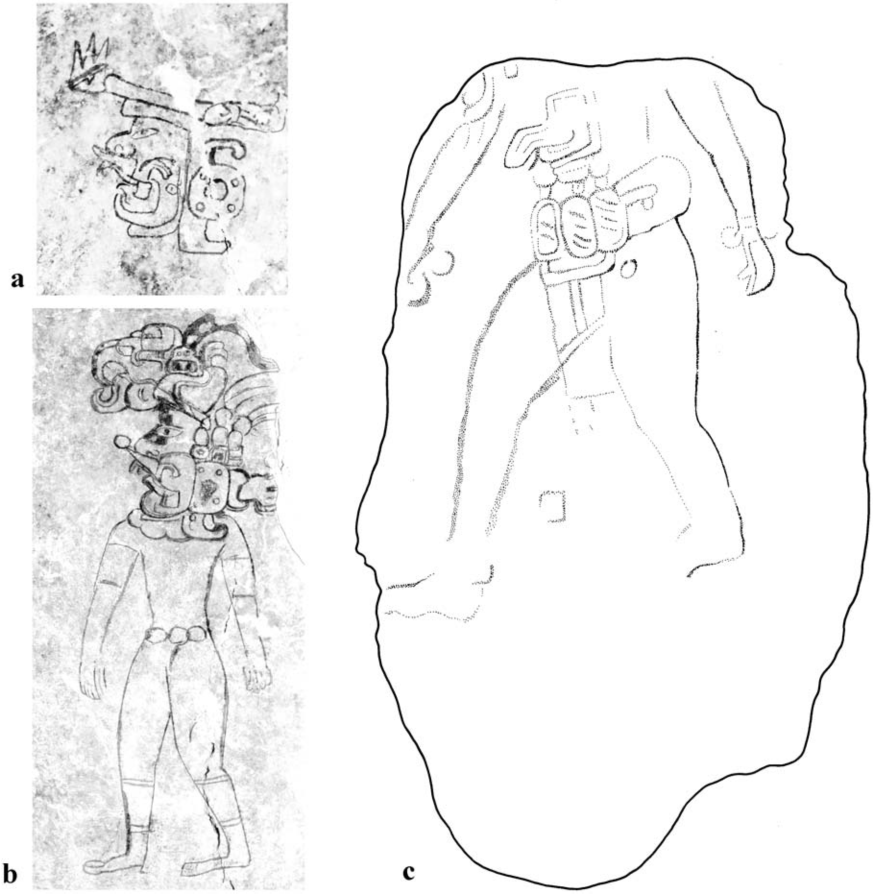
celts such as those in the cruciform cache below the same plaza, reinforcing the conceptual associations between jade, maize, and ruler as *axis mundi* (Taube 2005).

At Cival, the date of the first portrait of a ruler coincides with the construction of the earliest Triadic Group (Figs. 6.10, 6.11). Its main temple was decorated with monumental sculpture. In the southern lowlands, some of the best-known examples of Preclassic monumental sculpture on Triadic Groups are found at El Mirador, Nakbe, Calakmul, Tikal, Uaxactun, San Bartolo, Cerros, and Cival. These often represent the so-called Principal Bird Deity (PBD) or other deities of difficult identification, usually described as solar deities but including elements of rain, such as the Cival examples, resulting in a composite celestial deity. Some anthropomorphic masks can be readily identified as the young Maize God (e.g., at Calakmul) (Carrasco and Colón González 2005). The main theme of the Cival masks was the rising



6.7. Artistic reconstruction of the multi-level components of Cival Cache 4. Art by Joel Zovar.

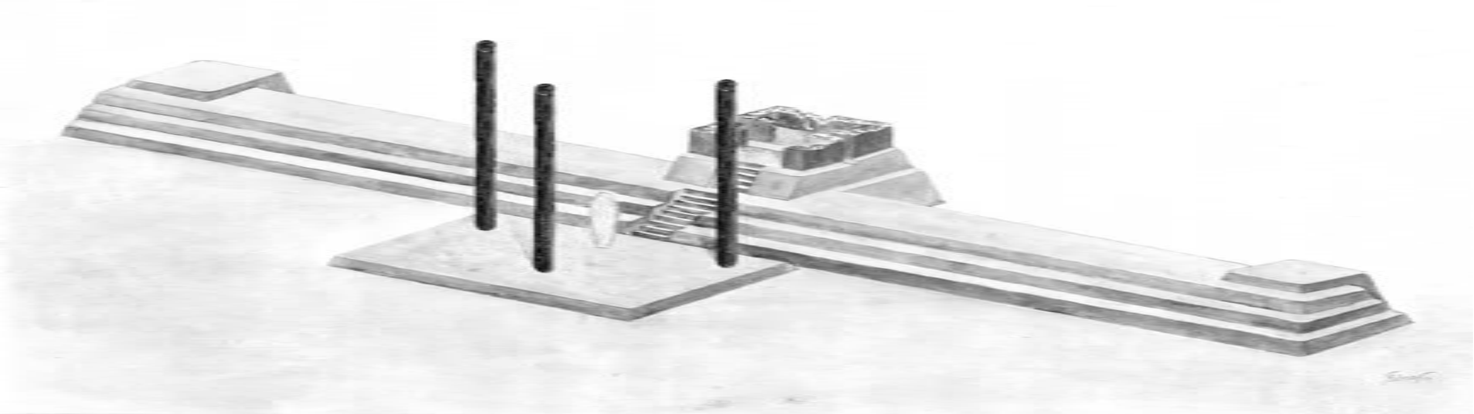
sun and the birth of the Maize God. Above the solar god masks, figures of the Maize God, some with royal headdresses, others with PBD/avian headdresses, were found painted inside the upper temple room (see Estrada-Belli 2011: fig. 5.22, 5.23). These figures are dated by C-14 to about 200 BCE (Estrada-Belli 2006b).[3] The themes expressed by the monumental sculptures seem to revolve around the places and actors of the world creation and the birth of the Maize God. To a certain extent, the iconography of the earliest Maya temples is an elaboration on a theme first depicted as simple incised motifs on the pre-Mamom ceramics discussed above, and so it represents an elaboration of pre-existing ritual symbols on a new medium.



6.8. Low relief carving of a striding figure wearing avian-head and three jade celts as a pectoral. Drawing by Nikolai Grube.

SUMMARY AND CONCLUSIONS

E-Group plazas, large ritual caches, and monumental sculptures constitute the earliest evidence in the Maya lowlands of monumentality and complexity in public rituals and, by inference, the appearance of centralized power. E-Groups and their associated rituals appear in the Middle Preclassic period, ca. 800–700 BCE. They are found in a wide area across the southern lowlands, from the Mirador Region to the Maya Mountains. These plazas were the monumental settings for rituals related to the creation of the Maya cosmos, the agricultural cycle, and the Maize God as the *axis mundi*, which

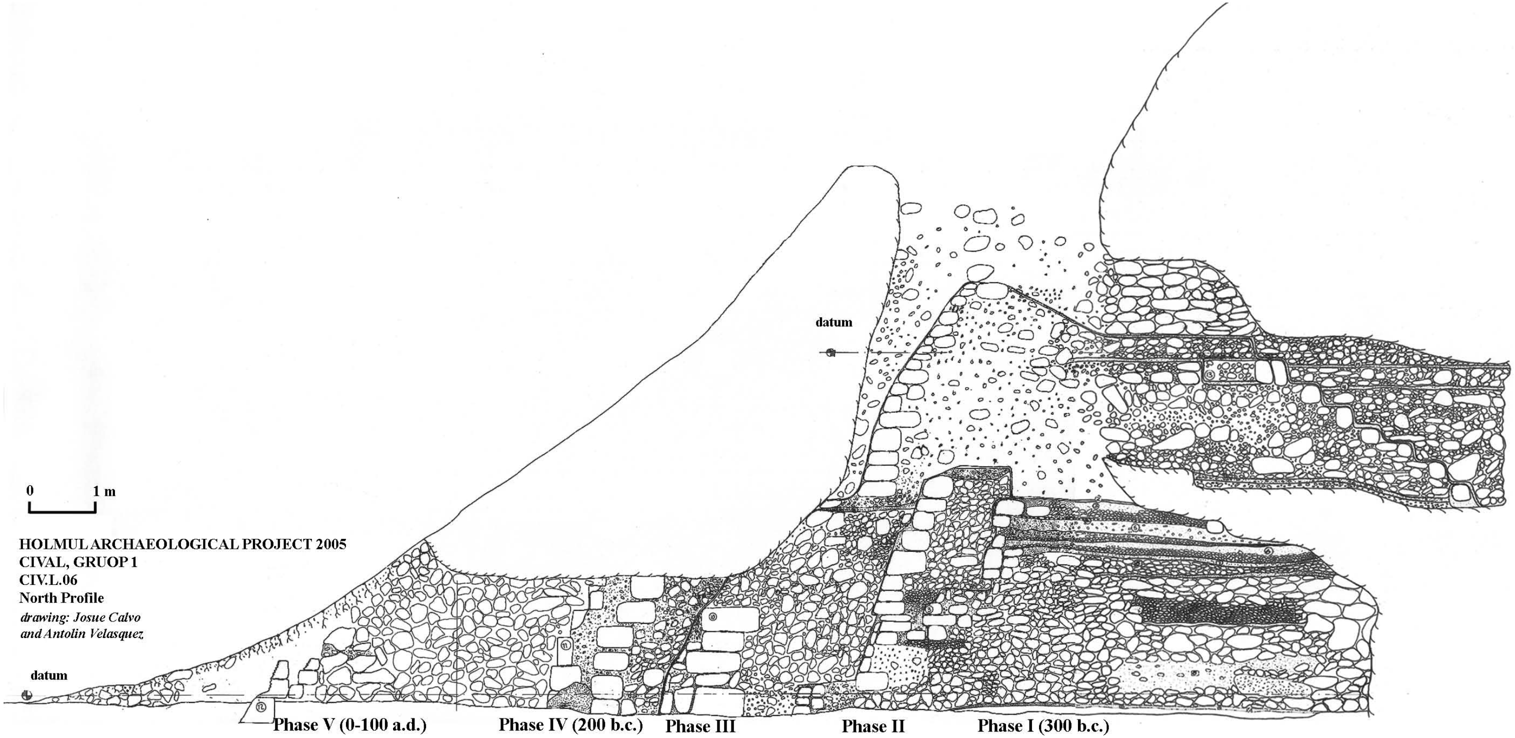


6.9. Artistic reconstruction of Cival's E-Group plaza's eastern platform and its outset central building (Structures 7 and 13[center]) Stela 2 is located on a low rectangular platform in connection with the eastern platform stairways central axis and is flanked by three large wooden posts (ca. 1 m in diameter).

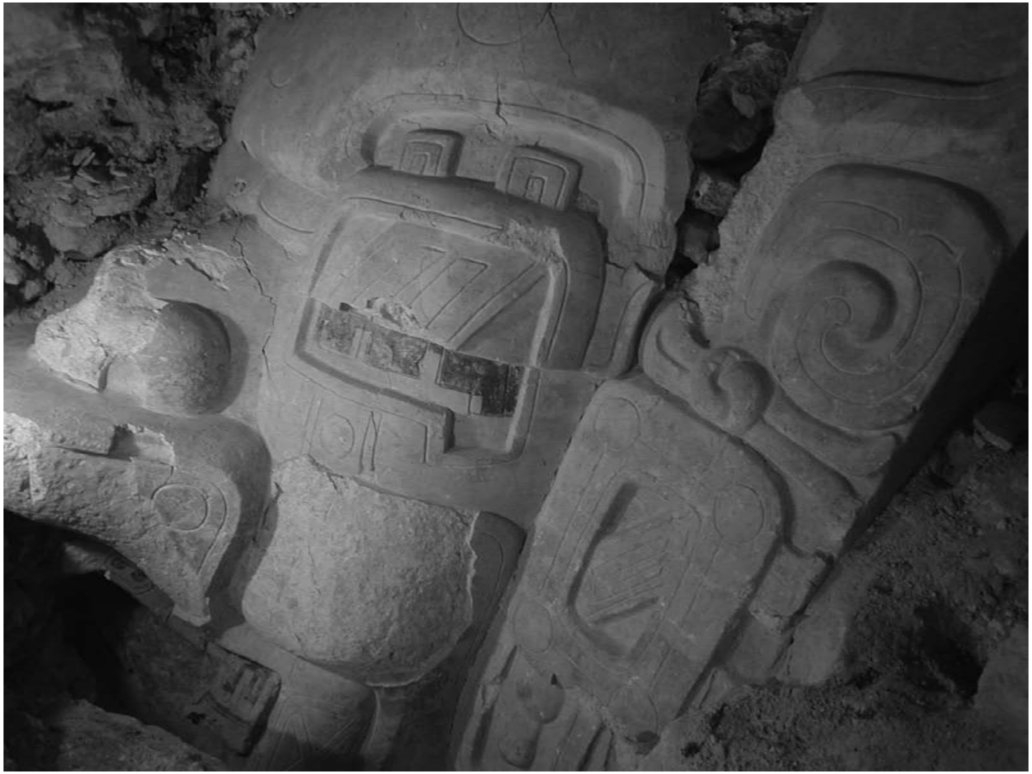
eventually became the prototype of kingship. Nakbe was perhaps the greatest ceremonial center in the lowlands of its time, but other sites were built in large scale as well. Later architecture certainly obscures the exact extent and form of early buildings even at purely Preclassic sites such as Cival. At the beginning of the Late Preclassic period (ca. 300 BCE), each center's population and resources increased as agricultural practices also improved. Ever larger temple complexes were erected, and the themes of creation and birth of the Maize God were elevated as the symbols of worldly power on a monumental scale. The greatest monumental complexes of this time were erected in the Mirador Region, at El Mirador, Tintal, and Wakna (Hansen 1998, and this volume).

Late Preclassic Cival was but one among many major centers outside the Mirador Region in which monumental construction took place. Its ceremonial center measures less than half that of El Mirador, as the majority of other centers do. The huge disparity in size among Preclassic centers and the location of the five largest so close to El Mirador should be meaningful. It could represent a huge and highly integrated political system stretching from the Mirador Region over much of the lowlands.

The distances are not prohibitive enough to deny El Mirador's reach over the lowlands. Archaeologists have been using the highly factional Classic Maya as a measure of reference for the Preclassic Maya. The Classic Maya were never unified under a single ruler, although they came close to unification at the end of the Classic period. In other regions of the world early unification is not uncommon and was often followed by fragmentation, as in southern Mesopotamia where the Uruk hegemony was followed by the proto-dynastic period of political fragmentation of Bronze Age Sumer (Oppenheim 1964). Much more research needs to be done on the political geography of the Late Preclassic to test models of El Mirador–centered hegemony over other polities. Much will depend on the evidence from other large centers in the Mirador Region. We are much less equipped to discuss a lowland-wide political geography of the Middle Preclassic period, but clearly we ought to consider that besides Nakbe there were other sizable ritual centers at that time—Cival, Tikal, Cenote, and other sites with early E-Groups being just a few known to us, not to mention yet-to-be-uncovered sites. These early centers could not exist in isolation given all their shared characteristics and probably had close political relationships with one another.



6.10. Stratigraphic profile of Cival's Triadic Group. The five construction stages span the period from 300 BCE to 100 CE.



6.11. Photo of monumental stucco mask on Cival's Triadic Group Structure 1, phase IV, dated by radiocarbon to ca. 200 BCE.

The progression from E-Group plaza rituals in the Middle Preclassic period to the monumental art of Late Preclassic period triadic temples seen in the Cival record provides a particularly compelling case for the continuity of ideological programs and of the associated concept of kingship from the Middle to the Late Preclassic periods. In spite of variation in sculptural art across the lowlands, from the Middle Preclassic on the theme of the creation and birth of the Maize God continued to be the message of lowland Maya ideology in ever-changing media. Far from being a period in which lowland Maya culture remained stagnant and impervious to stimuli from its neighbors, the Middle Preclassic period was perhaps a period of greater innovation in Maya culture-history.

The significance of the so-called Preclassic to Classic cultural transition may have been overemphasized. This is in part because the highland-centric perspective has dominated Maya archaeology, and accidents of discovery have favored the Late Preclassic period at a few widely spaced centers. In part, this may also be because too much importance has been given to the appearance of items of civilization such as writing and polychrome ceramics. Cross-culturally, writing often postdates state-level organization. Some of the world's largest states lacked writing altogether. In any case, there is evidence of writing in the Preclassic period, at least by 400–300 BCE (Saturno et al. 2006) as in other regions in Mesoamerica. Kingship, craft specialization, long-distance trade, monumental architecture, and public rituals, as a whole, are better indicators of a society's complexity than any individual feature taken singly, such as writing. When does this complex set of features appear in lowland society?

The transition from the Preclassic to the Classic period is often cited as such a moment. It is characterized by changes in the balance of power between cities that had been established a long time before. But in spite of the fall of El Mirador, we see a continuation of ritual and burial practices of rulers into the Classic period throughout the lowlands. Royal interments are increasingly individualistic in character as time progresses and first appear in public settings at the turn of the Christian Era in the Mirador Region and at Tikal. No real systemic change is apparent in the transition from the Middle Preclassic to the Late Preclassic period either. Rather, there appears to be a change in scale of the architecture, of the resources disposed of, and in the development of writing.

The real *conjuncture*, then, has to be found at the beginning of the Middle Preclassic period. The visible material correlates signal profound changes in sociopolitical organization, including large-scale public rituals, the consolidation of the ritual needs of neighboring villages into a central place by the conversion of hilltops into open ceremonial spaces, the appropriation of rituals associated with the ideology of the Maize God as life-giver that turned it into a symbol of central authority, and the creation of a network of competing centers of ritual and political power across the Maya lowlands. Long-distance trade of high-value items and other kinds of interactions with centers outside of the Maya region are also evident in the Middle Preclassic period beginning in 800 BCE, as attested by the presence of Motagua Valley jade at Cival (Seitz et al. 2001; Taube et al. 2011) and as far away as West Mexico (see Chapter 3).

Therefore, the interactions within the Maya lowlands among ritual centers as early as the Middle Preclassic period may have played a greater role in shaping what we refer to as Maya Civilization than may have interactions with other regions. The motives of these intense near-neighbor interactions are probably not the trade in necessities as Rathje's (1972) model suggested, nor in exotic items as in later revisions of that core-periphery theory (Freidel et al. 2002), but probably in a variety of symbolic-value items, most of which were made from materials locally available but fashioned with expert craftsmanship and esoteric knowledge. Pre-Mamom ceramics were fashioned locally and were decorated with fine symbols by expert hands. The symbols were not exotic in any way to the Maya. They represented values broadly understood across Mesoamerica expressed with esoteric sophistication.

In viewing the interactions among Mesoamerican regions, perhaps past generations of archaeologists have overemphasized the geographic and cultural distances, as well as diffusion and migration as mechanisms of change. If we view Preclassic Mesoamerica as a coherent cultural area rather than a patchwork of different cultural and ethnic traditions perhaps we could easily move beyond migration theories towards a more nuanced understanding. Regular interactions among different Mesoamerican peoples with very similar ideological and organizational systems had indeed taken place since the Early Preclassic period in spite of our datasets' imperfect chronological alignments and area coverage.

ENDNOTES

6.1. The Chicanel ceramic complex and the Mamom ceramic complex were first defined at Uaxactun by Robert E. Smith (1950).

6.2. A piece of charcoal recovered from the floor that sealed the Cival cache produced a 1-sigma result of 790–760 and 680–550 calibrated years BCE (2-sigma result of 800–520 cal. BCE; sample; 2520 + 40 BP C-14 years; CIV.T08.43, Beta 213528).

6.3. A piece of carbon found embedded in the stucco lining of the masks below the temple returned an uncalibrated date of 2170 ± 40 years b.p., a calibrated 1-sigma date of 260–160 BCE, and a calibrated 2-sigma of 360–90 BCE (Beta 1995-70 calibrated with Oxcal v.2.0). The temple rooms containing the painted figures were erected as part of the same construction episode as the masks.

7

Early States in the Southern Maya Region

MICHAEL LOVE

The lack of evidence has not deterred Mesoamericanists from making propositions about state origins. (Wright, 1977)

The analysis of early state formation is entering a new era in which scholars focus less on what a state is and more on how it is. Under the processualist rules for the investigation of state origins, dominant since the 1960s, scholars were urged to develop criteria for statehood, translate them into archaeologically observable patterns, and then evaluate the evidence to determine at what point in time a given society moved up the evolutionary ladder. One problem with those rules is that there is no single definition of a state that satisfies everyone (Claessen and Skalník 1978; Cohen 1978). Attempts have been made to adjust criteria, or to define sub-classifications such as the archaic state, the typical state, the city-state, the territorial state, or (everyone's favorite) the inchoate state, but still no consensus emerged, except in the most general of characterizations.

Playing by the new rules of the game, according to Norman Yoffee, we should propose analytical constructs, rather than classificatory dogmas, and focus our attention on "how social roles were altered and/or abandoned and new ones adopted or created in the development of the earliest cities, states, and civilizations" (2005:181). As anxious as I am to play by the new rules, and even to expand them by an explicit ban on sports metaphors, I admit a certain nostalgia for the nomological clarity of unqualified statements such as those that states have minimal populations of hundreds of thousands (Johnson and Earle 2000), states must exhibit at least four levels of regional hierarchy (Wright and Johnson 1975), or all states have palaces for their rulers (Flannery 1998).

Any paper, or any conference, purporting to be about state origins seemingly assumes from the outset that states can be identified (even if not defined) and that such identification somehow increases our understanding of the society or societies under study. However, that may not be the case, as classification can mislead as well as enlighten. Among the several myths of early states discussed by Yoffee perhaps the most salient is that "the earliest states were basically all the same kind of thing" (2005:5). Yoffee quite rightly observes that early states differed greatly in size, structure, cohesiveness, and culture, so that by labeling a given social formation as a state, we may in fact obscure more than we elucidate. While I can't endorse Yoffee's Rule that "if you can argue whether a society is a state or isn't, then it isn't" (Yoffee 2005:41), I do concur that our focus should be on analyzing social life and social relationships, rather than focusing too rigidly on definitions.

This chapter discusses two instances of social change in the Southern Maya Region during the Late Preclassic period. In both cases that changes result in the formation of a state of some kind, but the states were different in their size, their form, and in their developmental histories. The differences may be just as interesting as the similarities, and we may learn more about the two cases, and early states in general, by focusing on those differences rather than on whether one or the other conforms to some idealized form of the state. Perhaps more importantly, the social changes that took place in the Late Preclassic period illustrate the value of statehood as an analytical concept, showing why we should continue to use the term even if we cannot agree upon a definition of "the state." In the course of this chapter I will indicate what I consider to be important aspects of state systems and how such systems contrast with less complex forms of society and government, but my emphasis will be on analyzing social change rather than engaging in a classificatory exercise.

THE SOUTHERN MAYA CITY STATES AND CITY-STATE CULTURE

In an earlier paper (Love 2011), I defined the highlands and Pacific coast of Guatemala, El Salvador, and Chiapas, Mexico, as an interaction zone of early city-states during the Late Preclassic period. I labeled the region as the "Southern City-State Culture" or SCSC. My characterization drew upon Mogen Hansen's discussion of city-states and city-state culture, in which he observed that early states develop in networks of economically and culturally linked urban centers (Hansen 2000). The model shares some similarities with Colin Renfrew's 1975 definition of Early State Modules, but Hansen addressed cultural interaction among the states as well as their economic networks, and did not impose the uniformity of structure and size that Renfrew proposed. For Mesoamerica, analysis of the cultural dimension is fundamental in that many elements of high culture (following the definition of Baines and Yoffee 1998) were shared among those interacting cities, shaping the formation of elite identities that cut across ethnic and linguistic divisions (Love 2011). Hansen's model works very well for the highlands and Pacific coast, where a number of urban centers became early states that were linked by both economic exchange and cultural interaction. Like Yoffee (2005) Hansen distinguishes politics (the state) from culture (the civilization that is shared among several states).

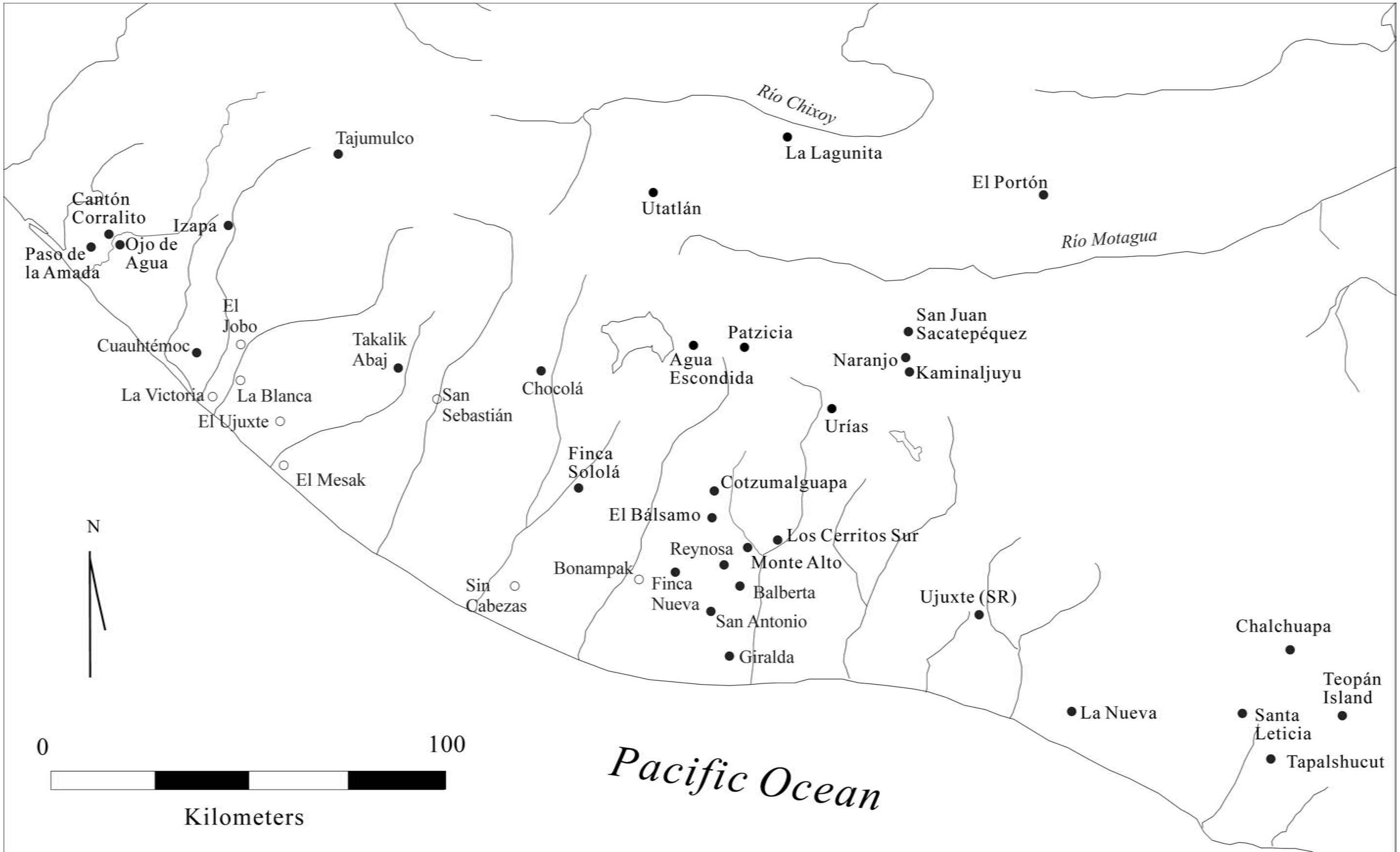
The cities within the Southern City-State Culture include Kaminaljuyu, Takalik Abaj, El Ujuxte, and Izapa. Each of those cities was both an urban center and the capital of a regional polity that reached statehood. Other cities, such as Chalchuapa, Chiapa de Corzo, Chocolá, Cotzumalguapa (which includes both El Baúl and Bilbao), and San Andrés Semetebaj were probably urban and may also have been state-level polities, but presently there is not enough evidence to be certain.

In the present chapter I wish to make a more detailed examination of the two cases where evidence for the development of the state is strongest: Kaminaljuyu and El Ujuxte. Although I label each as a city-state, there are significant differences between the two in size, wealth, the structure of their regional polities, and their historical backgrounds. The two cities occupied very different environments, with Kaminaljuyu in the central highlands of Guatemala and El Ujuxte the southwestern coastal plain just a few kilometers from the ocean (Fig. 7.1). Despite the differences, there are also significant similarities beyond the classification "city-state." Each crossed the threshold to statehood in the Late Preclassic period. Each was an important node in the trade networks linking the central Guatemalan highlands to the Pacific coastal plain. The elite of each city participated in aspects of high culture that were an important part of Southern City-State Culture, and Mesoamerica as a whole. Also, for each example there is sufficient evidence on either side of the cusp of statehood to analyze what changes took place during the transition, with multiple lines of evidence from regional surveys and household excavations, as well as data on economy, ideology, and rituals.

THE POLITICAL AND CULTURAL GEOGRAPHY OF THE SOUTHERN MAYA REGION

Having qualified the theme of my chapter regarding the definition of early states, I will add the further qualification that the territory we call the Southern Maya Region may not have been Maya, at least not all of it. It is very doubtful that all portions of the territory were occupied by Mayan speakers, and many different branches of the Mayan language family had developed by the Late Preclassic period (Josserand 2011). Although the largest cities, including Kaminaljuyu and Takalik Abaj, display cultural traits that were part of Maya high culture, they also display links to non-Maya Central America and to the Isthmian region, the latter being a region probably occupied predominantly by speakers of Mixe-Zoquean languages. The Southern Maya Region was a zone of cultural interaction, migration, and long-distance trading routes, so that many of the largest cities may well have been polyglot and multi-cultural (Love 2004, 2011). Hypothetical dichotomies, such as a highland Maya region and a Mixe-Zoquean coastal plain, are much too simplistic and ultimately unhelpful, implying that people within those zones were "all one thing." Many forms of identity probably crossed whatever linguistic boundaries may have existed, so that we cannot be sure even to what extent language structured interaction or formed the basis of social identity within any single city, let alone the entire region. With those stipulations, I will adopt the term "Southern Maya Region" here solely for parsimony.

Trends toward social complexity in this region begin as early, if not earlier, than anywhere else in Mesoamerica. At what point the developmental trajectory crossed the link to statehood in the region can be debated and depends much upon definitions. The social and political formations of the latter Middle Preclassic (ca. 600–400 BCE) and early Late Preclassic (ca. 400–200 BCE) defy easy classification and highlight the deficiencies of neo-evolutionary categories. The trajectories of social and political change,



7.1. Map of the Southern Maya Region.

which include population growth, urbanization, increasing political centralization, economic intensification, and changing ideological structures, may be best examined through the case studies that follow.

THE ORIGINS OF THE EARLY STATE IN SOUTHWESTERN GUATEMALA

The antecedents to the rise of El Ujuxte as a state in the Late Preclassic are lengthy, stretching back to the early complex societies of the Mazatán region of Chiapas (Blake 2011; Clark and Blake 1994; Clark and Pye 2006, 2011; Lesure 2011; Love 2007; Rosenswig 2010, 2011). At ca. 900 BCE, the beginning of the Middle Preclassic, the demographic and political center of the greater Soconusco shifted eastward from Mazatán to the Río Naranjo, located in present-day Guatemala, evidenced by a dramatic growth in population and a regional system that was much larger and more hierarchically structured than anything previously seen (Fig. 7.2). This striking change in regional organization is punctuated with the rise of La Blanca as a city and regional paramount (Fig. 7.3). La Blanca was one of Mesoamerica's largest settlements during the Middle Preclassic, with some of the most impressive early architecture in southern Mesoamerica. The city covered nearly 300 ha and its polity extended over 300 km^2, with more than 80 settlements and a multi-tiered settlement hierarchy (Blake et al. 1995; Love 2002c; Love and Guernsey 2011; Rosenswig 2005, 2010).

I will discuss the case of La Blanca in some detail because it is important to understand what changes took place during the transition from the Middle to the Late Preclassic, which is where I choose to locate the transition to statehood in the regional sequence.

The Regional System of La Blanca

The La Blanca polity had at least three and perhaps as many as five levels, depending upon how finely one wishes to divide settlements that lack monumental architecture and how one interprets the relationships between the second and third levels of the hierarchy. The nature of the regional capital, La Blanca, is discussed below. The second level consists of two centers, El Infierno and La Zarca, which each have one large public mound over 15 m in height. Izapa may also have been a secondary center of La Blanca during the Conchas phase (Love 2002c). A third level consists of settlements with smaller public buildings, whose remains are mounds roughly 5–6 m in height (Rosenswig 2010, 2011). The fourth level is composed of villages with 2 to 10 residences, and the fifth level is formed by isolated residential mounds.

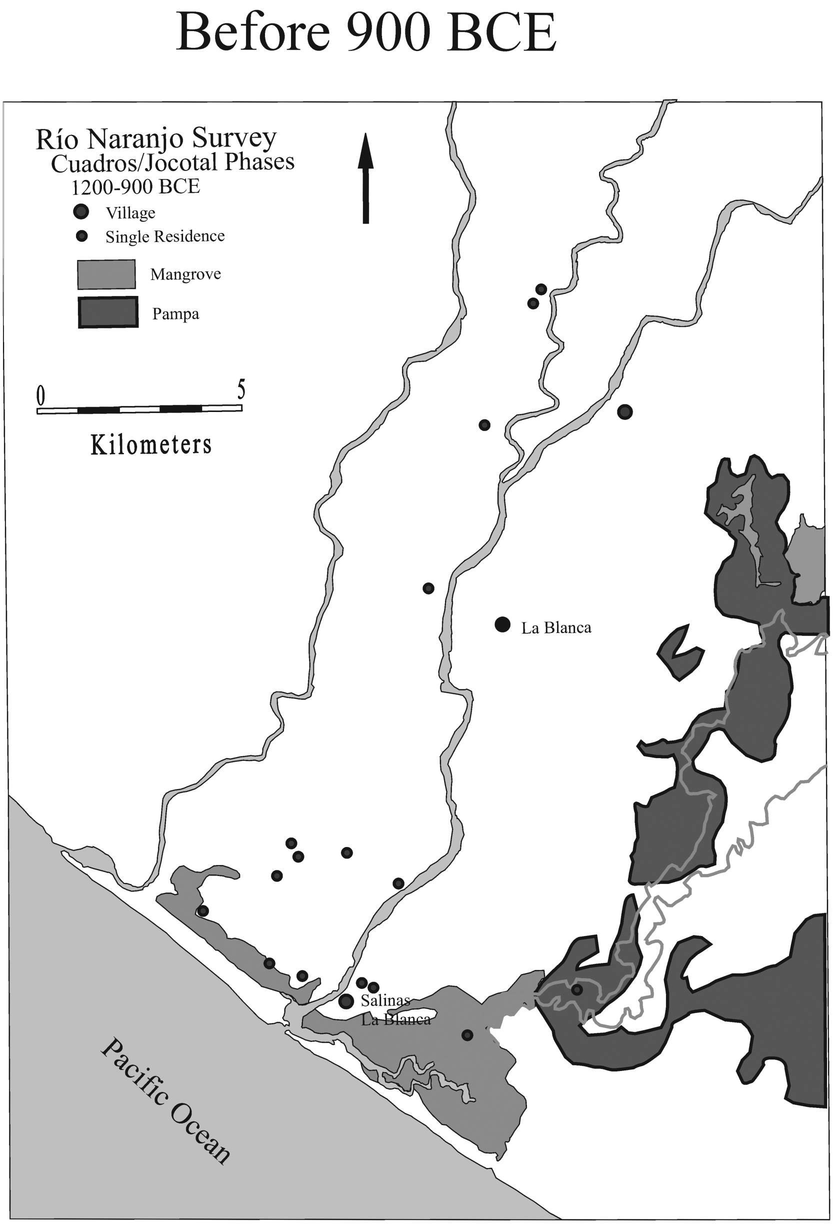
It is uncertain to what extent this formal settlement hierarchy reflects political organization. The third level of the hierarchy, identified by Rosenswig (2010), is exemplified by Cuauhtémoc, which had a single public mound approximately 5 m in height. All the third-level sites lie on the western edge of the La Blanca polity, and their relationship to the secondary centers is uncertain. The third-tier sites may have been dependent on La Zarca or El Infierno, directly under the aegis of La Blanca, or politically independent.

La Blanca as an Early City

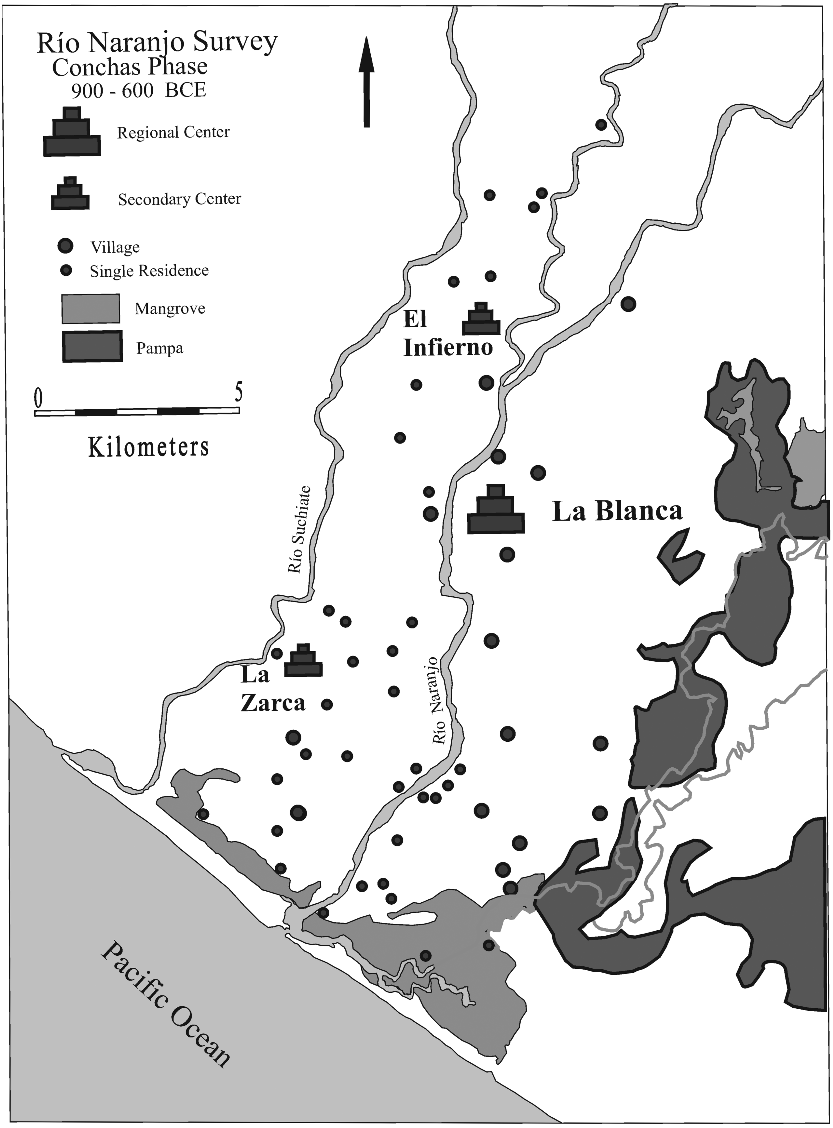
The core of La Blanca is a ceremonial precinct of about 100 ha. Areas of habitation extend over at least 280 ha, but surface materials are found over more than 300 ha. The exact boundaries of La Blanca are difficult to determine because of the extensive damage to the site caused by road construction in 1972–73. Road grading and filling certainly destroyed habitation mounds in the southern sector of the site, but may also have spread surface materials over a wide area. Only extensive excavation in the future will be able to determine the precise limits of the site.

The Central Precinct of La Blanca was an impressive ceremonial zone, which was leveled and raised with several meters of fill, perhaps as many as five at its north end. The first construction episode took place at the end of the Conchas A sub-phase, at about 900 BCE. The Central Precinct includes the West Acropolis, the East Acropolis, Mound 1, and several smaller public mounds (Mounds 3, 5, 25, and the now-destroyed Stela Mound). The smaller public mounds and the two acropolises serve to form four plazas around Mound 1: the Great Plaza to the north, the Sunken Plaza to the east, and the West and South Plazas. The major mounds and plazas are aligned with an axis that passes through Mound 1 to the peak of the Tajumulco volcano, the tallest volcano in Central America with an elevation of 4221 m. Not coincidentally, this axis of 22 degrees azimuth is very close to the 21 degree axis documented for the Valley of Guatemala's major centers in the Middle and Late Preclassic periods (Shook 1952).

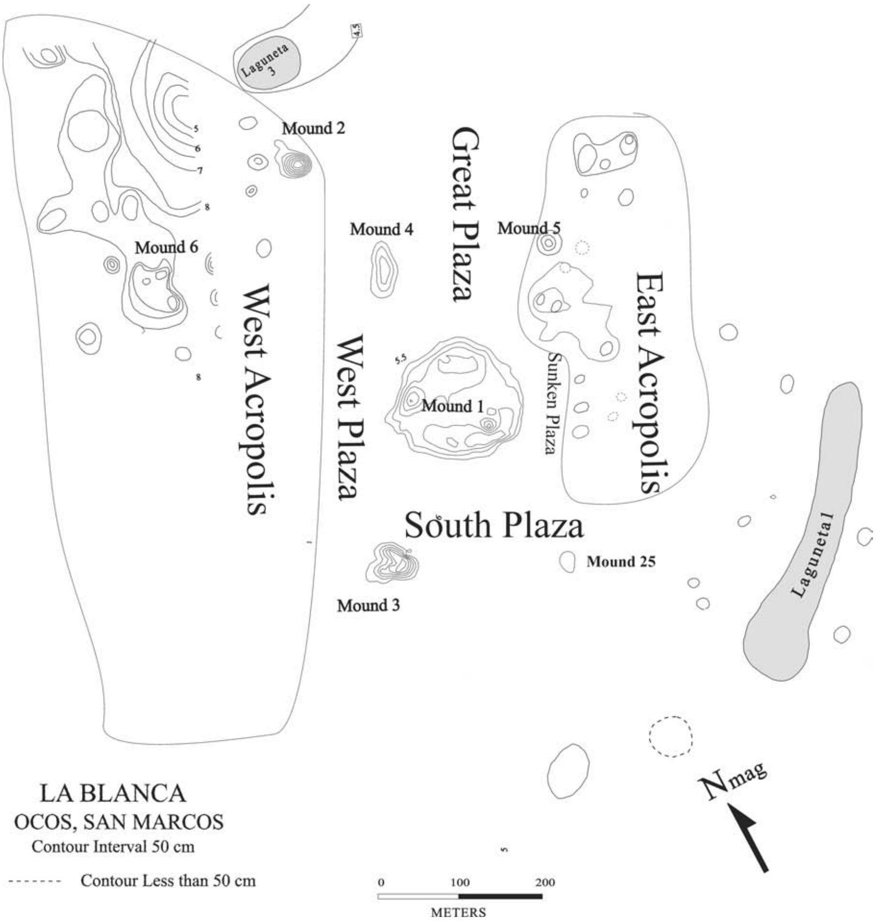
The largest ceremonial construction at the site, Mound 1, was one of the earliest monumental temple pyramids in Mesoamerica. The mound origi-



7.2. Map showing the increase in settlement in the Rio Naranjo survey region during the Early and Middle Preclassic periods.



After 900 BCE



7.3. Map of the central zone of La Blanca.

nally stood over 25 m in height, and measured 150 x 100 m at its base. It was built without stone, using a sophisticated rammed earth technique with a capping layer of selected dark brown clay. The great bulk of the mound was raised in a single construction episode, with subsequent enlargements accomplished by the application of relatively thin strata of earth. Mound 1 was largely destroyed in 1972 for road construction, but investigations in 2003, 2004, and 2008 found that its base survives to an overall depth of 4.5 m. Ceramics within the earliest phase of construction indicate that Mound 1 was built during the Conchas B sub-phase, sometime soon after 900 BCE (Love et al. 2005).

Only two fragments of stone sculpture are known from La Blanca (Love 2010; Love and Guernsey 2011). Monument 1 is a head carved in the Olmec style, representing either an anthropomorphic supernatural or a human with animal-like characteristics. Monument 2 is a knee fragment from a standing human figure. Other stone monuments, notably a stela, are rumored to have been present in the West Plaza, but have not been located. Other important, but smaller, art works from the site may include the Young Lord sculpture (Reilly 1987) and a saurian image now in the Museo del Libro in Antigua, Guatemala (Fields and Reents-Budet 2005a).The most unique sculptural monument from La Blanca may be Monument 3 (Fig. 7.4), an earthen altar in the shape of a quatrefoil (Love and Guernsey 2007; Love et al. 2006). All these sculptures reflect the participation of La Blanca in the Olmec sphere of interaction.

Household Differentiation at La Blanca

Excavations in residential zones at La Blanca show significant social differentiation at the household level (Love 1991, 2006; Love and Guernsey 2011). Elite households are marked by high densities of prestige goods, including jade, mica jewelry, and fine-paste ceramics decorated with elaborate iconography. The iconography includes supernatural beings, such as were-jaguars and other "Olmec" creatures, along with what may be calendrical symbols that closely resemble Lamat and Ajaw glyphs. The elite residences also have higher densities of obsidian and greater numbers of cores, suggesting that they controlled long-distance exchange.

Economic intensification provided the material base for the expansion of elite power during the Middle Preclassic and the means to finance monumental public works. Key elements of intensification were the increased consumption of maize and the use of the domestic dog as a protein source (Blake et al. 1992; Love 1999a, 2002b; Rosenswig 2005; Wake and Harrington 2002), both of which reflect a maximizing strategy of gaining the most calories for each unit of labor expended in food procurement (Love 1999a).

Social and ideological factors were also key aspects of elite power at La Blanca. High densities of animal bone in La Blanca Mound 9, two to four times that found at other residences, may indicate elite sponsorship of feasts (Love 2006; Barge 2012). Such feasts may have been held in conjunction with rituals associated with Monument 3. Rosenswig (2005, 2007) proposes that there was a significant shift in feasting patterns from the Early to the

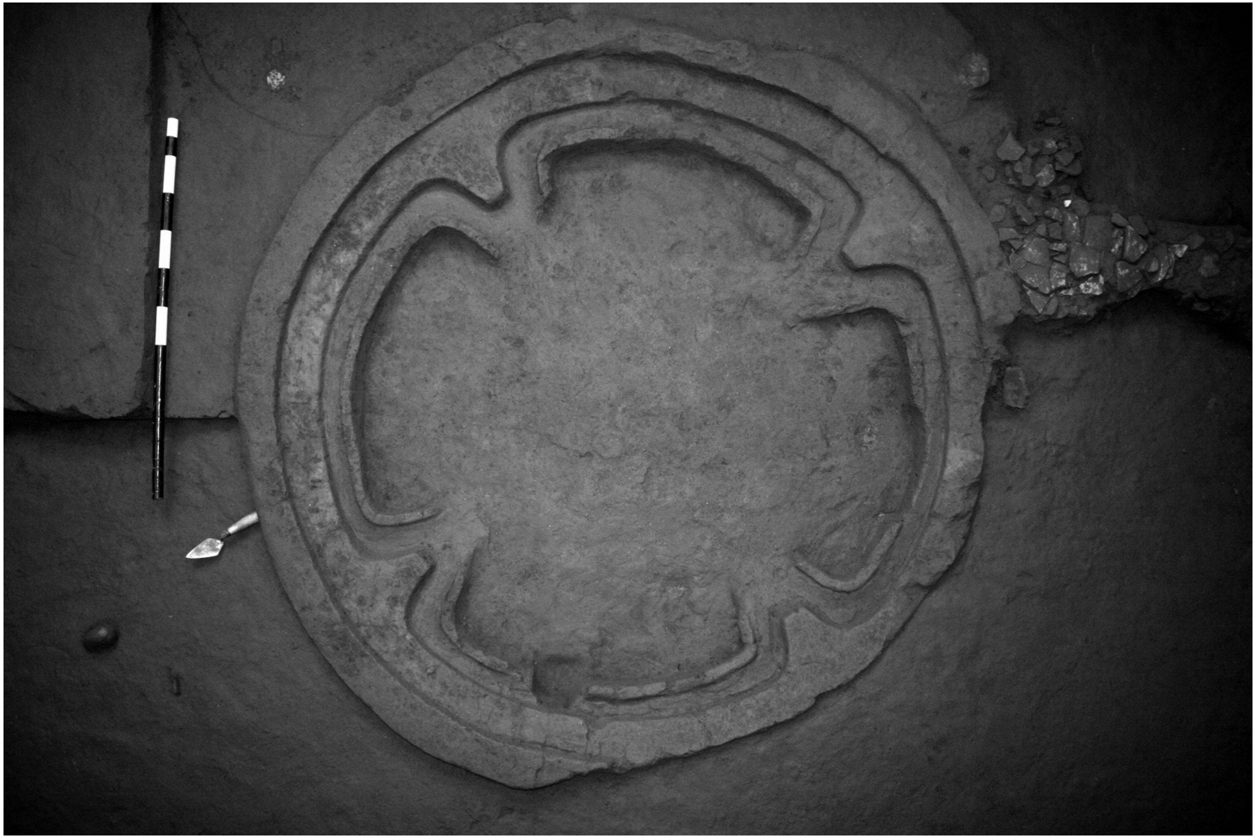
Middle Preclassic, and he believes that elites gained greater control over feasting activities as a means to solidify their political power. However, the distribution of fancy serving vessels at La Blanca appears to be widespread, indicating that most, if not all, households held some kind of feast (Fauvelle 2010). However, the kind of feasts held at elite households may have differed from those of others in scale and perhaps in the kinds of food served (Barge 2012).

Other types of household rituals involved the use of altars, incensarios, and ceramic figurines (Love and Guernsey 2011). The precise nature of domestic rituals is unclear, but many interpret Preclassic figurines as representative, especially of ancestors (Cyphers 1993b; Grove and Gillespie 2002; Guernsey 2012; Marcus 1998b). Joyce (2003) found that figurines also were used in public contexts adjacent to residential zones and proposed that they were used to mark milestones in individual lives, such as transitions between age groups. Whatever their meaning, handmade ceramic figurines are omnipresent and dense in the residences of La Blanca, indicating the great importance of household ritual in Middle Preclassic times.

What Kind of Polity Was La Blanca?

Under the old rules of the game, we would debate the nature of La Blanca's settlement hierarchy, and we might make a log/normal plot of settlement rank versus size in order to "objectively" determine just how many tiers there were in the regional hierarchy. Then we could look at the evidence for social stratification, and the degree of economic centralization, before making a final decision on whether La Blanca was a state. With apologies to Yoffee, there is a lot to argue about in this case.

There are many aspects of the La Blanca polity that are state-like. First, there is evidence of a strong centralized government. The most conservative classification would see three levels of hierarchy in La Blanca's regional system and the most liberal might see five. The concentration of population in the Río Naranjo region, drawing population from both the Mazatán zone to the west and the Río Jesus zone to the east, may be evidence of coercive resettlement (Love 2002c). The massive mobilization of labor to construct the acropolis and Mound 1 may also be evidence of a strong centralized government. Despite recent theoretical developments proposing that monumentality is not necessarily indicative of centralized power (summarized in Rosenswig and Burger 2012), the strong central planning



7.4. Photograph of La Blanca Monument 3.

exhibited at La Blanca bears the hallmarks of elite culture: sophisticated engineering (standardized orientations, standardized measurement, precise leveling, selected materials, and the sophisticated rammed-earth construction technology), ideological unity and significance (the central axis aligned to astronomical and geographical targets), and the incorporation of elite residences (the East Acropolis) as part of the Central Precinct.

The evidence for significant social stratification at La Blanca is strong and shows a clear division between elites and non-elites. The differences in wealth between the East Acropolis residences and others at the site show a great gap between elites and non-elites. Jade, the best indicator of household wealth at La Blanca, appears in much higher quantities in the residences of the East Acropolis, especially Operations 32 and 37, which are adjacent to the Sunken Plaza (Love and Guernsey 2011).

Many Mayanists either place great emphasis on the first appearance of rulership (Estrada-Belli 2011) or equate it with the development of the state (Kaplan 2002). La Blanca shows the presence of an ideology of rulership in the form of the quatrefoil, Monument 3, which is clearly linked to Middle Preclassic systems of elite power. The quatrefoil symbolizes a portal to the supernatural and was long-lived in Mesoamerica, being consistently linked to elite power and the ability of rulers to communicate with the supernatural (Guernsey 2010). Further, representations of supernatural figures, such as the were-jaguar, and symbols such as the Ajaw and Lamat, are limited to elite residences at La Blanca. Figurines from elite residences may depict rites of transformation, some of which parallel imagery better attested in monumental art in which rulers took on the qualities of supernatural beings (Guernsey 2006:82).

By framing the evidence in a certain light, one could represent La Blanca as a small state. But in the end, I come down against viewing La Blanca, or any other Middle Preclassic polity, in that light. In my view, the city looks like the capital of a state, but its regional system did not reach the status of a state-level polity. Yes, there was rulership, but that in and of itself is not indicative of a state system of government. Nor is social stratification in and of itself definitive, because divisions based on wealth may also appear in pre-state societies (Fried 1960). Mechanisms of financing governmental and public infrastructure were apparently limited to the ability to draw upon the labor of the populace. Further, I view the size of the system and the complexity of the governmental apparatus as key to defining the existence of a state. On that measure, the La Blanca polity does not seem to be large or complex enough to be called a state. The second-level centers do not appear to be large settlements with significant administrative complexes; they lack public buildings other than their principal mounds, so that they may have acted merely as ritual centers rather than governmental ones.

Despite the evidence of a pronounced social hierarchy, control over labor, and an ideology of rulership, then, it would be hyperbole to call La Blanca a state because the institutions of government were poorly developed. The La Blanca polity did, however, successfully subjugate a large hinterland from which it could draw labor and resources. In that respect it established the basis for centralized power that was to become more pronounced and more developed in the years that followed its decline.

THE GROWTH OF SOCIAL COMPLEXITY AND THE FORMATION OF AN EARLY STATE AT EL UJUXTE

After 600 BCE, La Blanca declined to be a small village of approximately 20 ha, although its large temples may have continued to be used for some time as pilgrimage sites, judging by the amount of Late Preclassic and Classic period ceramics found on their slopes. Late Preclassic burials are found as intrusive features in abandoned Conchas phase housemounds, perhaps a sign of veneration and respect for what the city had been and for the sacred location that it continued to be. There may have been a brief period during which the region lacked political centralization (Love 2002b), but by 500 BCE a successor to La Blanca developed just over 10 km to the east. That site, El Ujuxte, became a large urban center by the Late Preclassic period and the capital of a system that was much larger and more complex than that of La Blanca.

El Ujuxte as a City

Occupation at El Ujuxte (Fig. 7.5) began in the second half of the Middle Preclassic at about 600 BCE, and the major axes of the site's grid may have been laid out at that time. Major constructions at the site have not been extensively excavated, but evidence from the Central Plaza excavations show that constructions there began during the Caramelo phase (600–400 BCE), with offerings placed at the origin point of the site axes.

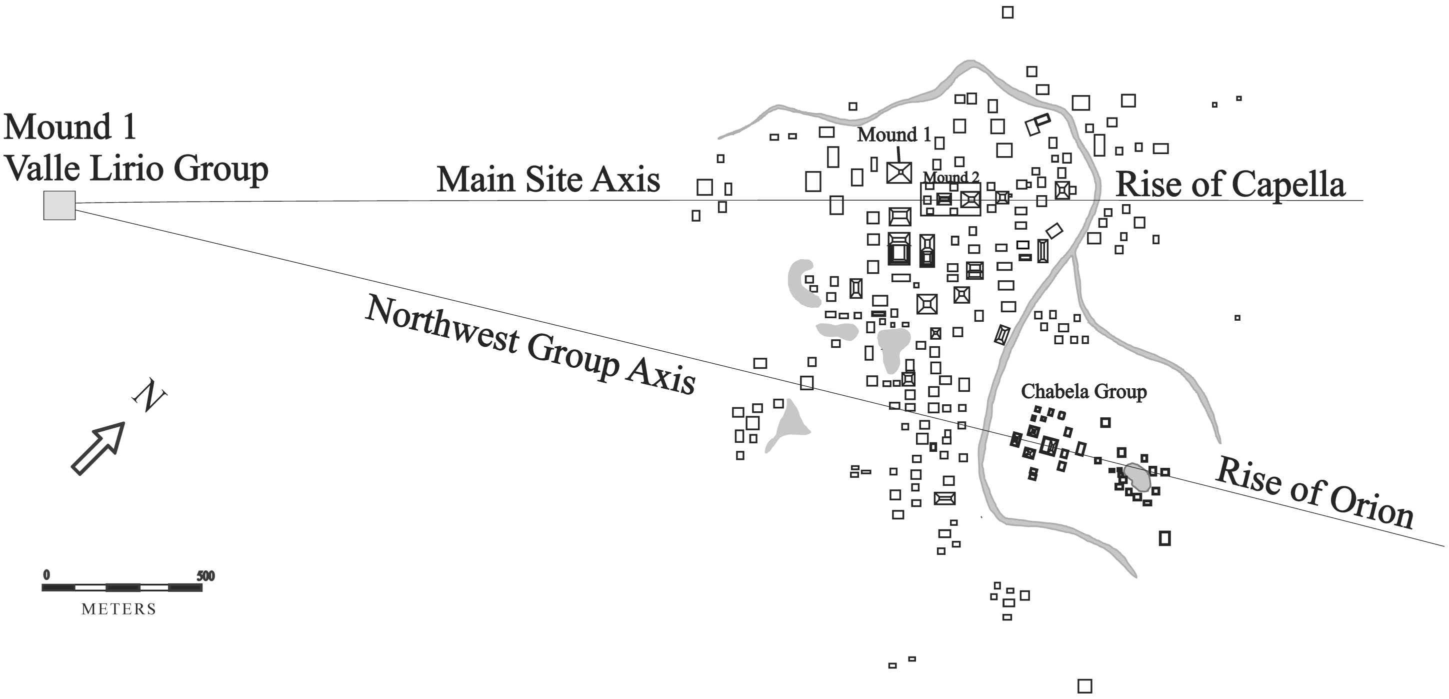
Primary deposits dating to the Caramelo phase have been found in only 2 of the 16 residential areas tested, so that the overall size of the site at that time may not have been terribly large. The division of the Caramelo and Cataluña phases is based on frequencies of ceramic wares, so surface remains cannot be unambiguously attributed to one phase or the other. Hence, a secure estimate of the site size in its early occupation cannot be given at the present time.

By the Cataluña phase (400–200 BCE), El Ujuxte consisted of a nuclear zone covering at least 4 km^2. Surface remains, indicating extended habitation zones, cover over 6 km^2. If the mound group at the site of Valle Lirio is included as part of the site, its total area exceeds 8 km^2. Within this area are over 200 mapped mounds and many more unmapped ones that, during our five years of fieldwork, were located on private farms to which we were unable to obtain access.

El Ujuxte was built on a grid plan. The longest axis of the grid (north to south) aligns with the rising of the bright star Capella. With the exception of the Chabela Group, all buildings at the site, both public and residential, share the same orientation with their longer axes on an azimuth of 35 degrees east of magnetic north. Burials also align with the site grid, although the orientation of the head may be toward any one of the four grid directions. Major streets within the city run east to west.

The alignment of Mound 1 with the summit of Mound 2a (the tallest mound on the Mound 2 Acropolis) coincides with the point of summer solstice sunrise over the peak of the volcano Santa María. Other alignments mark the zenith passage sunrise, winter solstice, and the rising of the Pleiades (Poe 2000). The ceremonial core of the site, then, marks important passages of the sun: the 260-day zenith passage cycle and the 365-day solar year.

The Chabela group, located northwest of the Mound 2 platform, has a distinct alignment of 89 degrees azimuth. This alignment coincides with the rising of the constellation Gemini on the northern horizon. The significance of this event is uncertain, other than the fact that the rising of Gemini occurs on this line-of-site just before sunrise, as well as the rising of Orion. Significantly, the main site axis and the axis of the Chabela Group intersect at the principal mound of the Valle Lirio group, some 2.5 km south of Mound 2, showing a considerable amount of engineering skill as well as astronomical knowledge.



7.5. Map of El Ujuxte.

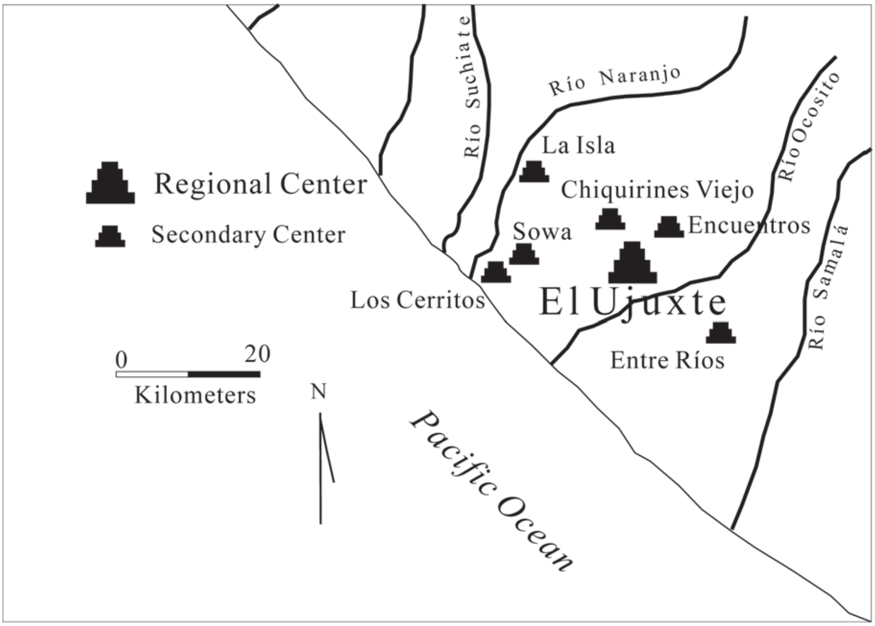
The Regional System of El Ujuxte

The El Ujuxte polity was both larger and more complex than the Middle Preclassic La Blanca polity. First, it was twice as large, covering approximately 600 m^2, stretching from the Río Naranjo to somewhere between the Río Ocosito and the Río Samalá (Fig. 7.6). Second, it encompassed at least five and possibly six levels of hierarchy. Below El Ujuxte, the second tier consists of at least four centers, each of which covers over 1 km^2. Each of the secondary centers has public architecture that copies that of El Ujuxte. The largest of the secondary centers is Chiquirines Viejo with a central complex that replicates precisely the El Ujuxte pattern of an acropolis surmounted by seven mounds with its largest mound to the west. The remaining secondary centers have the acropolis with seven mounds, but lack the large pyramid to the west. Tertiary centers have at least two large "public" mounds at opposite ends of a plaza, those mounds being no more than 6 m in height. Fourth-level centers have a single "public" mound, 5–6 m in height. The fifth and sixth levels of the hierarchy consist of large and small villages without public architecture.

The size and complexity of the regional system are the most important factors in considering the El Ujuxte polity to be a state. The scale and sophistication of the secondary centers shows them to be significant administrative centers, while their replication of El Ujuxte´s acropolis plan shows them to be part of its political system. To date, none of these secondary centers has been excavated, so there are no data regarding the economic relationship between El Ujuxte and the lesser cities. There are, however, good data from El Ujuxte itself about the economic and ideological systems that formed the basis of its power.

Making a State: Economics and Ideology at El Ujuxte

The early state that took shape at El Ujuxte was in part an outgrowth of the La Blanca polity and in part a dramatic reorganization of its predecessor. In an earlier paper (Love 2002b), I analyzed the transition as an episode of political cycling, in which centralized power had to be re-established, in an altered form, following the collapse of the La Blanca polity. Elites seeking power, I proposed, consciously modified aspects of the previous system in order to enhance their power and make it more enduring. In the process, they created both economic and ideological institutions that gave rise to a state system of government. In what follows, I will both summarize and

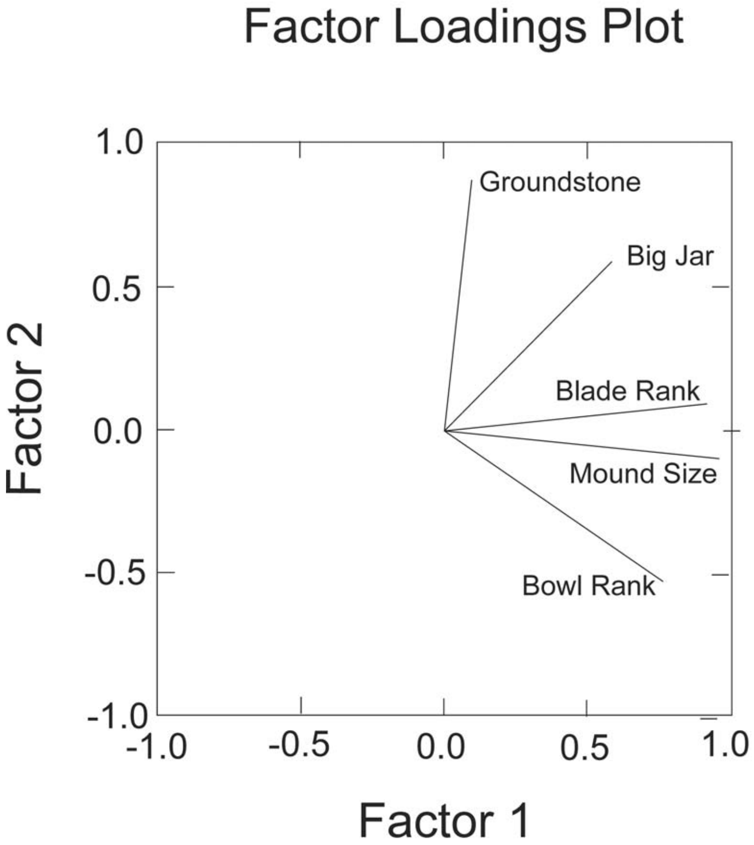


7.6. Map showing the extent of the regional system of El Ujuxte.

amplify aspects of that earlier paper. My focus here is on the institutions of power and of government, so I will not address another topic of that paper, the transformation of agency. The modification of daily practice and its implications for agency and resistance were as important to the creation of the state as was the institutionalization of power, but space does not allow me to treat that topic here.

Social Differentiation and Economic Organization

If regional data inform us about the nature of government at El Ujuxte, it is excavation data from households and public spaces that tell us about the basis of social power. Excavations at El Ujuxte sampled 16 residential structures. A principal components analysis of variability in the household assemblages is shown in Figure 7.7. The plot shows the relationship between five variables used to rank households at El Ujuxte: the size of the platform on which the residence was constructed (ranging from 1 to 6 m in height), the ratio of obsidian prismatic blades to casual obsidian tools, the



7.7. Diagram showing a principal components analysis of household variability at El Ujuxte.

number of large storage jars, the size (rim diameter) of food service bowls, and the ratio of formal grinding tools to utilized cobble tools.

Using these variables, Mound 35 (excavated by Operation 12) is the highest ranked residence at the site. The plan of Mound 35 (Fig. 7.8) suggests that it was a palace structure. It is a multi-tiered elongated platform running west to east along the small stream that passes through the center of the site. Two test pits placed in the structure showed a unique facing of white/gray clay and earth on the penultimate construction episode. Low mounds around the structure appear to be part of an elite compound, and within one of these structures the small pendant was found. This pendant, perforated for hanging, conforms to the "Bib" headdress identified by Freidel (pers. comm., 2003) as one of the insignia of Preclassic rulers of the Maya lowlands, and suggests that the compound in and around Mound 35 may have been the residence of the ruler(s) of El Ujuxte.

The complete elite compound (which includes Operations 11 and 13 in addition to Operation 12) ranks highest on nearly all measures of household status. Figure 7.9 shows a plot of two such variables: Blade Rank (the ratio of prismatic blades to casual obsidian tools) to Big Jar rank (the frequency of large storage vessels). What this plot shows is that the greatest incidence of storage vessels is found in the residences of highest rank. This and other evidence we have in hand shows that the economy of El Ujuxte was much more centralized and elite-dominated than that of La Blanca. The elite had much more control over subsistence surpluses and long-distance exchange of both basic and exotic materials. In addition, it appears from the obsidian data that the El Ujuxte elite took steps to eliminate independent exchange networks that may have promoted household autonomy, such as those that procured small nodules for the production of casual obsidian tools.

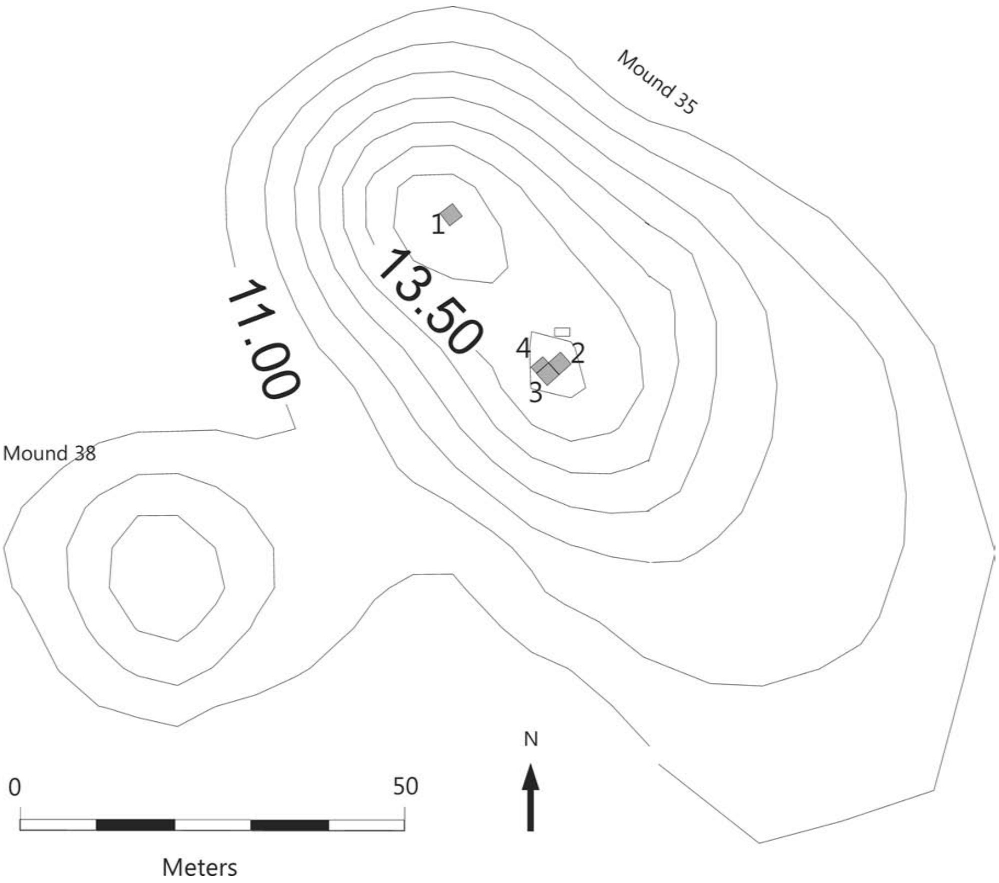
Ideology

Ideological change at El Ujuxte is manifested in two important aspects of ritual practice. First, there is a dramatic reduction in household ritual. Second, there is a concomitant rise in public ritual at specific locations such as the Mound 2 platform and the Central Plaza.

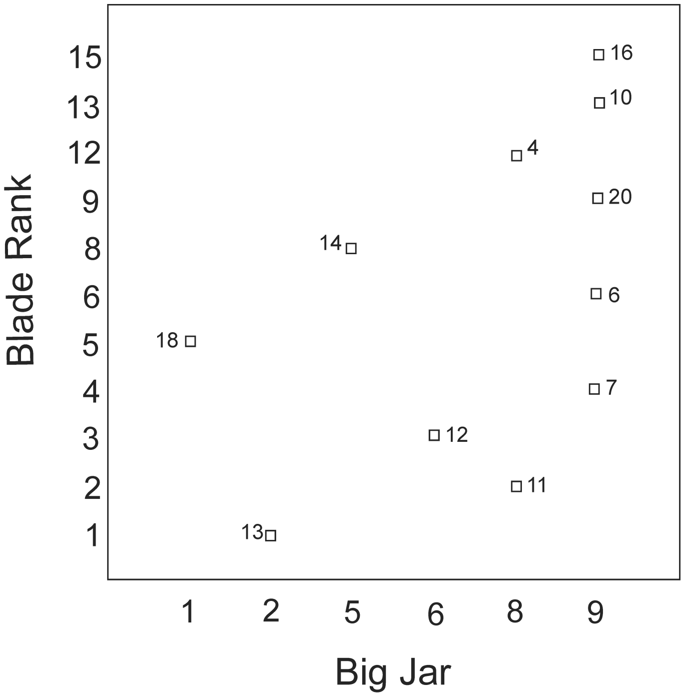
Household Ritual

As discussed above, during Middle Preclassic times at La Blanca two classes of materials were most strongly linked to household ritual: ceramic figurines and feasting vessels. The forms of household ritual linked to those materials suffered a dramatic decline at Late Preclassic El Ujuxte. At La Blanca the frequency of figurine heads per cubic meter of excavation ranges from 1.4 to 3.9, depending on the household and the subphase. At El Ujuxte, however, their frequency is about 0.02 fragments of all figurine parts (heads and bodies) per cubic meter of excavation, with most of the 19 figurine fragments recovered coming from the Caramelo phase deposits. Clearly, a dramatic change took place, and figurine use plummeted after 600 BCE.

At La Blanca, feasting vessels, which I define as the elaborately decorated Cuca Red on Buff bowls (Love 2002c), were found in all households.



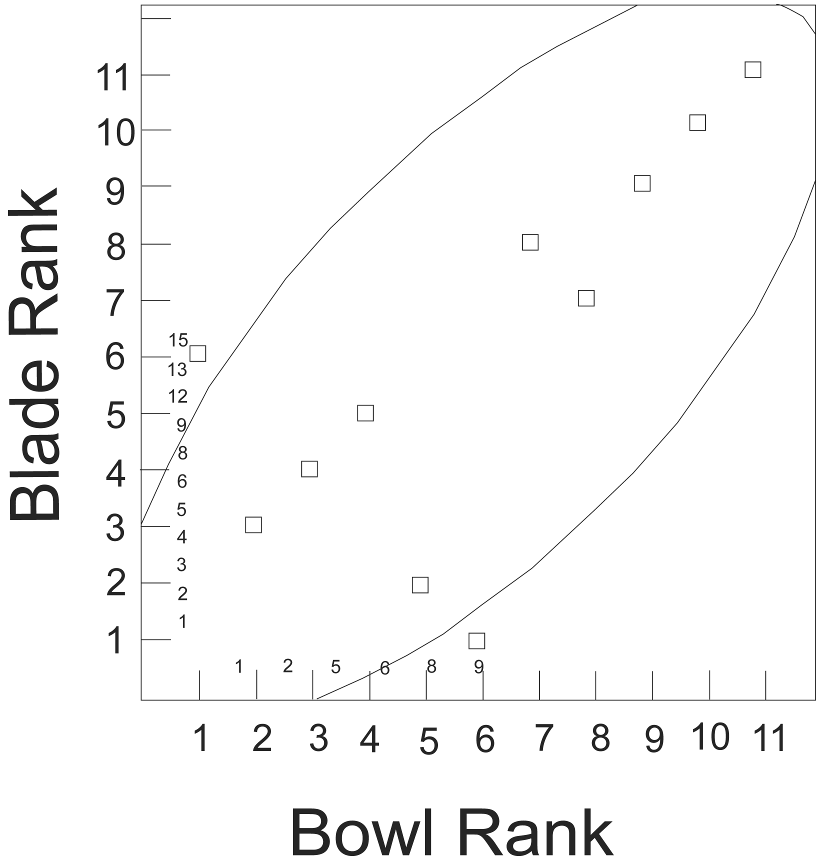
7.8. Plan drawing of Mound 35 and surrounding residences.



7.9. Plot of blade rank and storage jar rank for El Ujuxte residences demonstrating that that the highest incidence of storage vessels is found in the residences of highest rank.

An analysis of serving vessel size (limited to flat-bottomed bowls with outleaning walls) showed no significant differences across households (Fauvelle 2010) for any ceramic ware. At El Ujuxte, however, the frequency of feasting vessels (defined in this instance as out-leaning bowls with diameters more than 1 standard deviation above the mean) is strongly correlated with household rank. As shown in Figure 7.10, these data suggest that at El Ujuxte feasting became largely restricted to elite households. Feasting probably did not completely disappear from lesser-ranked households, but was curtailed and became much more the prerogative of the elite.

At the same time that these two important aspects of household ritual were reduced, ritual in the public sectors of the site was amplified, an assertion supported by two lines of evidence. First, the formality of architectural arrangements in the core of El Ujuxte is striking, and the large plazas fronting the stage-like Mound 2 platform suggest public spectacles with large au-



7.10. Spearman's rank correlation for blade rank and feasting bowl rank for El Ujuxte residences showing that the frequency of feasting vessels correlates strongly with household rank.

diences. Second, the number of caches excavated in the Central Plaza indicates a scale of public ritual that vastly exceeded that of previous times.

The remains of four floors, and hints of a fifth, were found during the Central Plaza excavations at El Ujuxte. Associated with each floor were offerings in the form of caches of ceramic vessels and other materials. The greatest number of offerings was associated with the Pitahaya phase renovation of the plaza, which took place at about 100 BCE. The Pitahaya phase offerings were placed along the east/west axis of the site, on the centerline of Mound 1. Within a 4x4 m exposure, we recovered 131 vessels in 30 discrete caches (Love and Balcárcel 2000). The caches include pebbles of contrasting materials (igneous stone and pumice) that may have been used in divinatory rituals similar to those of modern day-keepers, as well as stingray spines used for letting blood. Two caches, Features 27 and 28, include numerous small dishes, 3 large bowls, and 2 ceramic crosses in each (Figure 7.11).

El Ujuxte does not possess the massive sculptural programs of sites such as Kaminaljuyu, Takalik Abaj, and Izapa. Nonetheless, the ritual caches, the site grid, and the astronomical alignments all suggest that the elite of El Ujuxte expressed the same ideological statements favored by other elite, and carried out rituals similar to those depicted on the sculpture of other sites (Guernsey 2010; Guernsey and Love 2005). The elite, presumably in the person of a ruler, appropriated rituals that had formerly been private and made them public in a spectacle where an elite interpretation of ideology was presented (Love 1999b, 2002b).

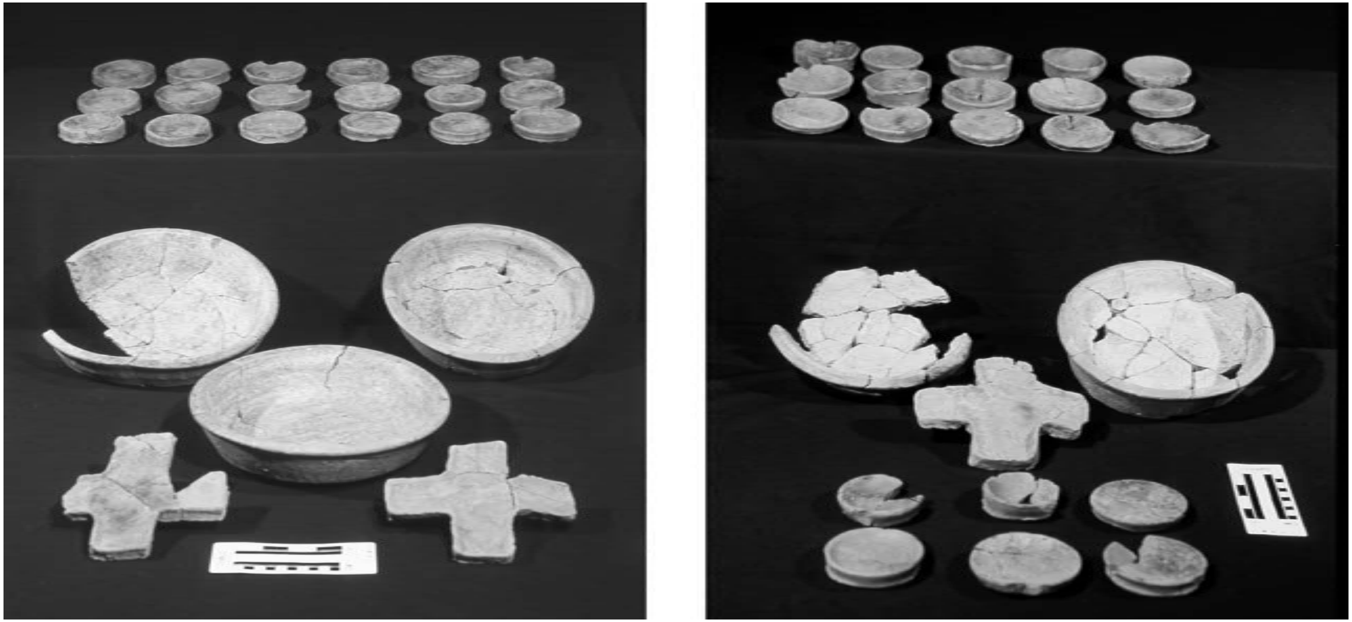
This interpretation becomes more credible when we examine the evidence for the new ideological claims made by the elite at El Ujuxte. At La Blanca, and in earlier times, rulers derived their identity and power from linking themselves to themes of supernatural communication and fertility. In particular, there is a focus on communication with the supernatural realm (Love and Guernsey 2007) as attested by the Monument 3 quatrefoil, or reiterated in the overall site plan, which was aligned to the volcano Tacaná, another symbolic portal to the underworld. The elite at El Ujuxte, however, make much broader claims based on grandiose visions of celestial and cosmological order. The site as a cosmogram was concerned with solar cycles and celestial phenomena and sought to create a city that was in harmony with those cycles. The elite evidently controlled a growing body of astronomical and calendrical knowledge and used it to construct a mythology of creation and an ideology of power. Like the rulers at San Bartolo who commissioned murals replete with cosmological significance (Taube et al. 2010), the rulers of El Ujuxte quite literally structured their site with the symbols and messages of cosmological order. The caches—with their cruciform-shaped plaques, divinatory pebbles, and stingray spines—may have symbolized the actions of divine sacrifice at the time of creation, so that the ruler replicated the ritual actions that brought the present creation into being. This ideology of rulership, dramatically different from and much more grandiose than that of Middle Preclassic times, became the template for rulers in southern Mesoamerica for the next 1000 years.

The power of the elite at El Ujxute, and the state-level system of government that sustained it, rested on two pillars of equal importance: economics and ideology. Economically, the elite of El Ujuxte expanded the power developed under the hegemony of La Blanca by gaining greater control over the production and distribution of key resources, thereby undermining household autonomy. Ideologically, they also undermined household autonomy by bringing ritual into greater public view, where they controlled the agenda. In this setting they presented a new interpretation of rulership, one in which the ruler was presented as the center point for maintaining cosmological order.

The new order brought into being at El Ujuxte and other Late Preclassic centers was apparently efficacious. The political system of El Ujuxte was more successful than that of previous centralized polities in that it was larger, more complex, and longer enduring than any political system of the Early or Middle Preclassic. It survived for over 600 years in an increasingly complex and competitive social landscape, close by the large centers of Izapa and Takalik Abaj. Eventually, El Ujuxte, like much of the Southern Maya Region, was caught in the enigmatic Late Preclassic collapse whose causes are yet to be fully understood.

COMPLEXITY IN THE PRECLASSIC PERIOD IN THE VALLEY OF GUATEMALA

The story of social complexity in Preclassic highland Guatemala has for many years been considered synonymous with Kaminaljuyu. Late Preclassic Kaminaljuyu was one of the most magnificent cities of ancient Mesoamerica and is justifiably recognized for its Preclassic art and architecture. It has taken over 30 years to discard the label of chiefdom placed on the Preclassic city by the Pennsylvania State project (Michels 1979a), but recent research has made it clear that Late Preclassic Kaminaljuyu was a large urban settlement and likely the paramount of a state-level regional polity. New investigations have also clarified the Middle Preclassic period in the Valley of Guatemala and revealed both antecedents, and possible early competitors, to Kaminaljuyu. Fresh data from outside the Valley of Guatemala provide information about the limits of the Kaminaljuyu polity, preventing the pendulum from swinging too far away from the "chiefdom" label and too far toward viewing the city as an expansionistic territorial state.



7.11. Photographs of artifacts recovered from Features 27 and 28 in the Central Plaza excavations at El Ujuxte.

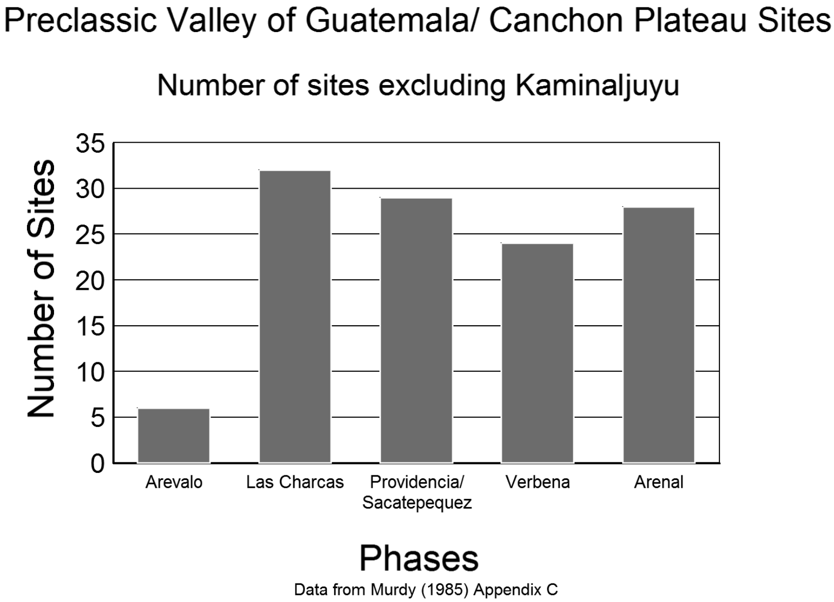
The Settlement History of the Valley of Guatemala

Reconstructing the settlement history in the Central Highlands of Guatemala is a difficult task and requires the judicious use of a number of sources. Many of the projects that have studied Kaminaljuyu and the Valley of Guatemala have used different methods of ceramic analysis and developed distinctive classificatory schemes yielding conflicting ceramic chronologies (Ohi 1994b; Shook and Popenoe de Hatch 1999; Wetherington 1978). I have adopted the chronology proposed by Shook and Popenoe de Hatch (1999) and attempted to match the studies of others to that framework. A close reading is needed to make correct phase assignments in terms of that chronology, and even with close reading the data from some sources are simply not usable.

The most intensive survey of the Valley of Guatemala and the adjoining Canchón plateau, immediately to the southwest, was undertaken by the Pennsylvania State University Kaminaljuyu project (Michels 1979b; Michels and Wetherington 1979; Murdy 1984), but the study by Shook (1952) is still in many ways the most useful. The Pennsylvania State settlement data, though laudable in a great many respects, are complicated by several factors. Foremost is the heavy reliance upon obsidian hydration dating for making chronological assignments. In addition to the general problems inherent in obsidian hydration as a chronometric technique, even under the best of circumstances (Braswell 1992; Ridings 1996), the assessments of Murdy's valley-wide survey are made more problematic by the use of a small number of dates derived from surface materials. Dates derived from these assays often have been contradicted by subsequent investigations. A good example is the site of Naranjo, dated by the Pennsylvania State project to the Terminal Formative, when the occupation at the site is, in fact, Middle Preclassic (Arroyo 2006, 2010a). Further examples are provided by excavations of the Kaminaljuyu San Jorge (Popenoe de Hatch 1997), Miraflores II (Valdés and Popenoe de Hatch 1996), and A-IV-1 (Velásquez and Hermes 1992) projects, where ceramic dating contradicts the chronological assignments of the Pennsylvania State obsidian hydration dates. A further problem is that the ceramic chronology used by the Pennsylvania State project varies significantly from that now commonly accepted, not only in the time spans assigned to ceramic phases, but in the elimination of the Majadas and Santa Clara phases.

Figure 7.12 shows a relative measure of population history for the Valley of Guatemala and the Canchón plateau, deriving the number of sites per phase from Murdy (1984) and Shook (1952). I have drawn upon Murdy's data to the greatest extent possible by ignoring the dates from obsidian hydration and using only ceramic data reported in Appendix C of his dissertation. That procedure reduces by half the number of Preclassic sites that he reports, but makes dating of the remaining sites much more secure. Further, the data indicate only the presence of pottery from a given phase, and not its spatial distribution, meaning that site size for a given phase cannot be estimated.

The reconstructed demographic history of the region shows only scattered small settlements during the Early Preclassic Arévalo phase (ca. 1200–900 BCE). The similarity of Arévalo ceramics to Pacific coast assemblages is often interpreted to mean that the first agricultural colonists of the valley derived from the coast (Arroyo et al. 2007; Popenoe de Hatch 1991; Robinson et al. 2002). The great leap in population occurred in the Las Charcas phase, when the number of sites increased six-fold. The number of sites declined in the Providencia and Verbena phases, but Shook's data suggest that sites in those phases were larger than in Las Charcas, often much larger,

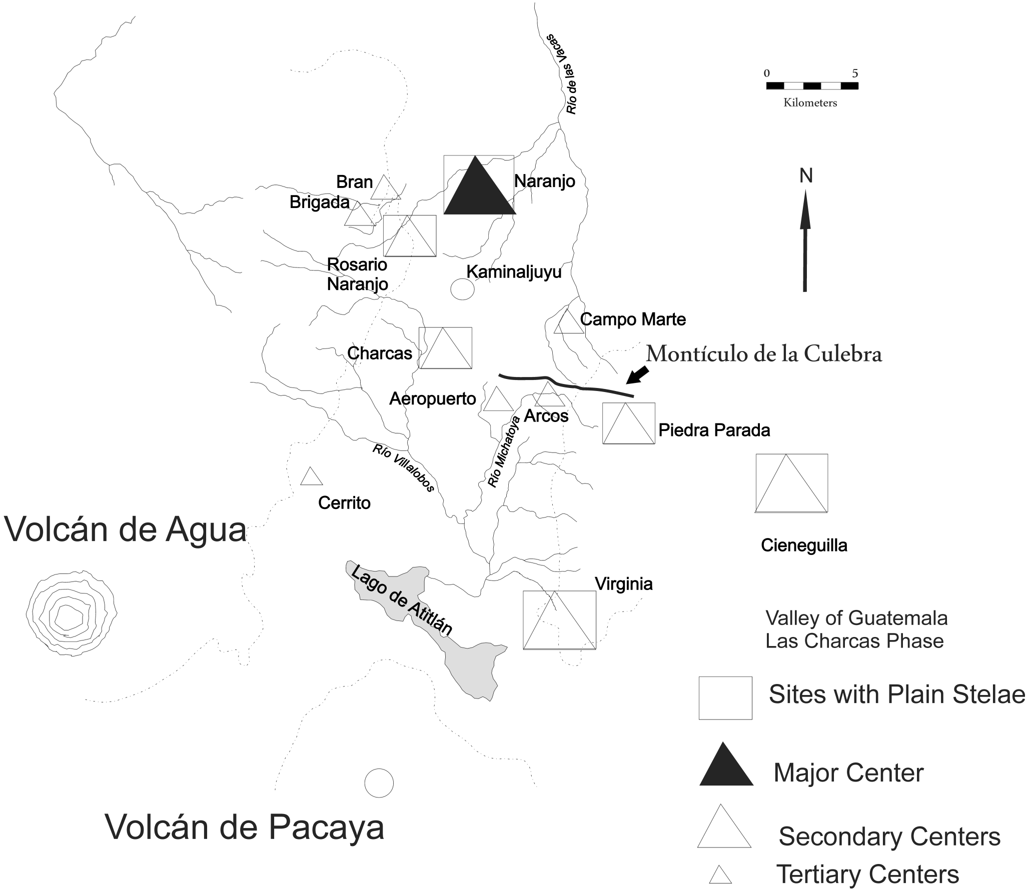


7.12. Graph showing the number of sites identified for each phase of the Preclassic period in the Valley of Guatemala.

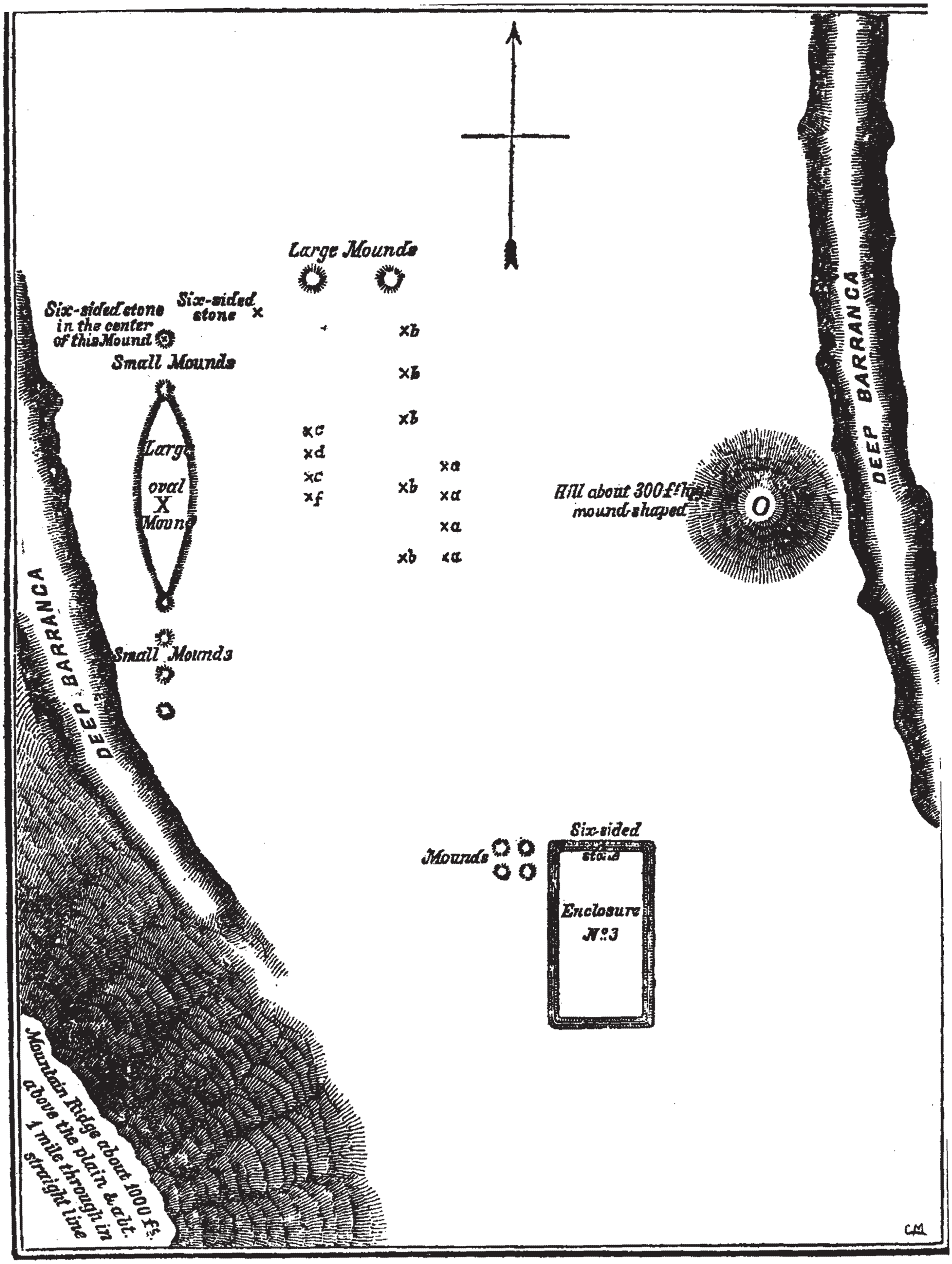
so that overall population probably grew, albeit by an unknown amount. Most importantly, we know that the area of occupation at Kaminaljuyu increased significantly during those two phases, strengthening the conclusion that valley-wide population continued to grow until the end of the Preclassic period.

The growth of population in the Las Charcas phase coincides with evidence for a noticeable increase in socio-political complexity and ceremonial activity. Figure 7.13 shows the distribution of population within the Valley of Guatemala and also indicates sites with public architecture and stone monuments. Sites with confirmed (excavated) public architecture from this time period include Kaminaljuyu (Shook 1951), Mulatto (Martínez Hidalgo 2003[1999]; Martínez Hidalgo et al. 2003[1998]), Naranjo (Arroyo 2006), and Rosario Naranjo (Jacobo 2003[1992]). At Mulatto a series of low platforms, ca. 2 m in height, form an octagon around a plaza, and a solitary mound, 6 m in height, is close by (Martínez Hidalgo 2003[1999]; Martínez Hidalgo et al. 2003[1998]). Small platforms in formal arrangements were also constructed at Kaminaljuyu by this time, as documented by the Miraflores II project (Martínez et al. 1996). An enigmatic but massive structure called the Gran Muro was found near Mound B-I-1. The wall, of unknown function, measured 7.5 m in height, and was traced for a length of 50 m before it passed under modern housing (Ohi 1994b). Small pyramidal structures were also present at Kaminaljuyu and Naranjo. Shook documented several more sites (Virginia, Arcos, Portillo, Charcas, Cieneguilla, and others) with small pyramidal mounds (6 m in height and less) and occupations that include the Las Charcas phase. But because these sites were occupied in subsequent periods, the unexcavated pyramidal structures cannot be dated securely to Las Charcas alone. The long, sinuous earthwork known as Montículo de la Culebra was also begun during the Las Charcas phase with the construction of low clay platforms. Martínez Hidalgo and Cabrera Morales (1999) state that the early construction of the La Culebra included a canal or canals with hydraulic functions. If that interpretation is correct, intensive agriculture within the Valley of Guatemala began much earlier than previously suspected. La Culebra will be discussed at greater depth in a following section.

Although Kaminaljuyu was an extensive settlement in the Las Charcas phase, Naranjo (Fig. 7.14) was the largest and most impressive of all the sites known for that period in the valley (Arroyo 2006, 2010a; Popenoe de Hatch 2002b; Shook 1952). Naranjo has a pyramidal mound 7 m



7.13. Map of Las Charcas phase sites within the Valley of Guatemala.


Large Mounds
Six-sided stone in the center of this Mound
Six-sided stone
Small Mounds
Large oval X Mound
Small Mounds
DEEP BARRANCA
xb
xb
xb
xc
xd
xc
xf
xb
xa
xa
xa
xb
xa
Hill about 300 ft high mound-shaped
DEEP BARRANCA
Mounds
Six-sided stone
Enclosure No. 3
Mountain Ridge about 1000 ft above the plain & alt. 1 mile through in straight line
CM

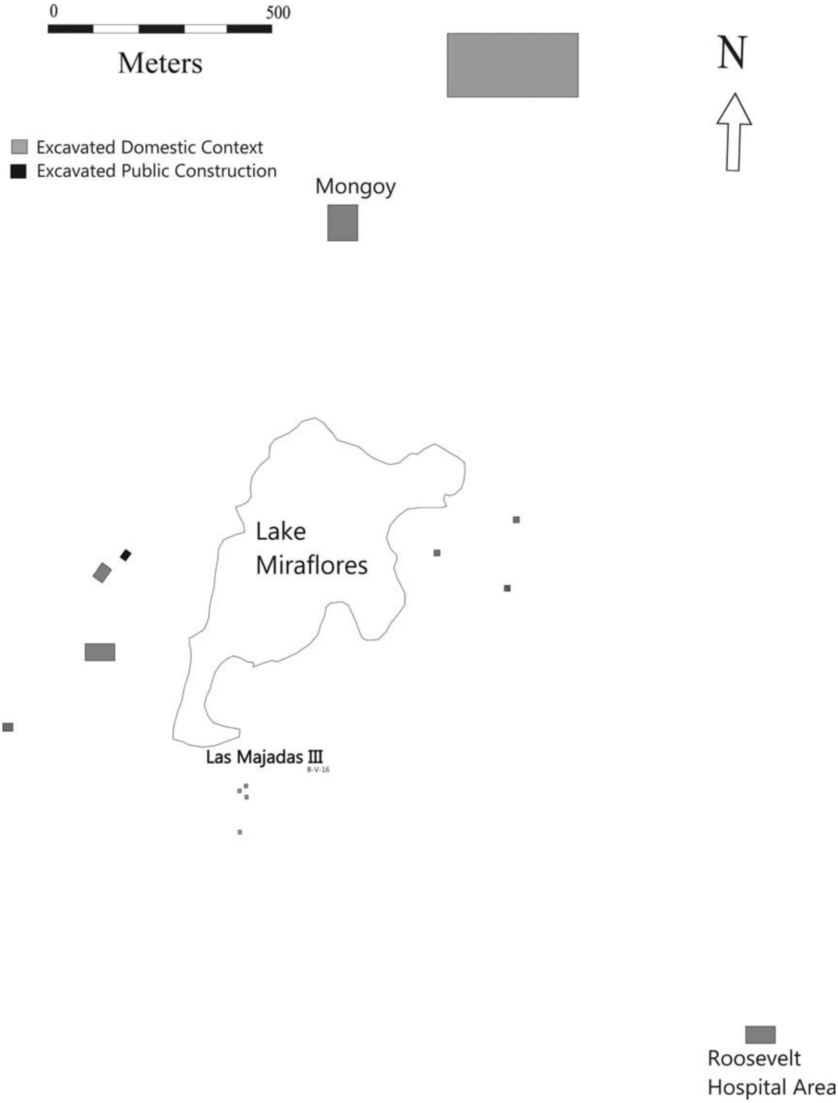
7.14. Map of Naranjo.

in height, a number of low platform mounds, and 34 plain monuments (stelae and basalt columns) aligned in three rows within the plaza east of the largest mounds (Arroyo 2006, 2010b; Pereira Figueroa et al. 2006). A fourth row was recently discovered on the west site of the large mounds (Arroyo 2010b). The unsculpted columnar basalt monuments may have been imported from over 30 km distance, and ritual offerings were found associated with many of them. Although the plain monuments dominate at Naranjo, there are vestiges of low-relief carving on one of the stelae, and three sculpted monuments documented at the house of the owner of the property may have come from the site (Arroyo 2006:5). Habitation areas, previously unknown at the site, were excavated by Arroyo, and the map of the site shows areas of habitation that exceed 100 ha (Arroyo 2010b: 49).

Naranjo's principal occupation dates to the Las Charcas phase (850–600 BCE) and continued into Providencia times (600–400 BCE), but population declined at the beginning of the Late Preclassic Verbena phase. Naranjo ceramics and figurines share similarities with complexes from the Pacific coast, including the use of some stylistically Olmec motifs, and attest to strong cultural relationships with both the central and western Guatemalan coastal zones (Arroyo and Paiz 2010).

Within Kaminaljuyu, Las Charcas phase occupation was significant all around the borders of Lake Miraflores, but especially heavy on the north side of the lake (Fig. 7.15). Public constructions, pyramidal mounds of 6–7 m in height, were erected at C-III-6, C-III-9, and C-III-10 (Shook 1951; Popenoe de Hatch 1991). Recent excavations have found substantial Las Charcas deposits east and south of the lake (de León and Alonzo 1996), as well as occupations north of the mapped mounds at the Parque la Democracia (Velásquez 2006). There was early platform mound construction in the A-IV-1 group, although probably for domestic purposes (Suasnávar Bolaños and Flores 1992; Velásquez 1993; Velásquez and Hermes 1992).

The Miraflores II project recovered substantial evidence of Las Charcas phase occupation south of Lake Miraflores, in the Miraflores plaza, during the Middle Preclassic as well (Popenoe de Hatch 2000, 2002b; Valdés 1997). Ceramic materials from the Las Charcas phase were found in four mounds, along with domestic features such as floors, hearths, and trash pits. East of the Miraflores plaza, habitation was scattered, but extended to approximately 400 m east of the mapped mounds, where Las Charcas phase deposits were recorded by the Carnegie near the modern Roosevelt Hospital (Kidder 1961).



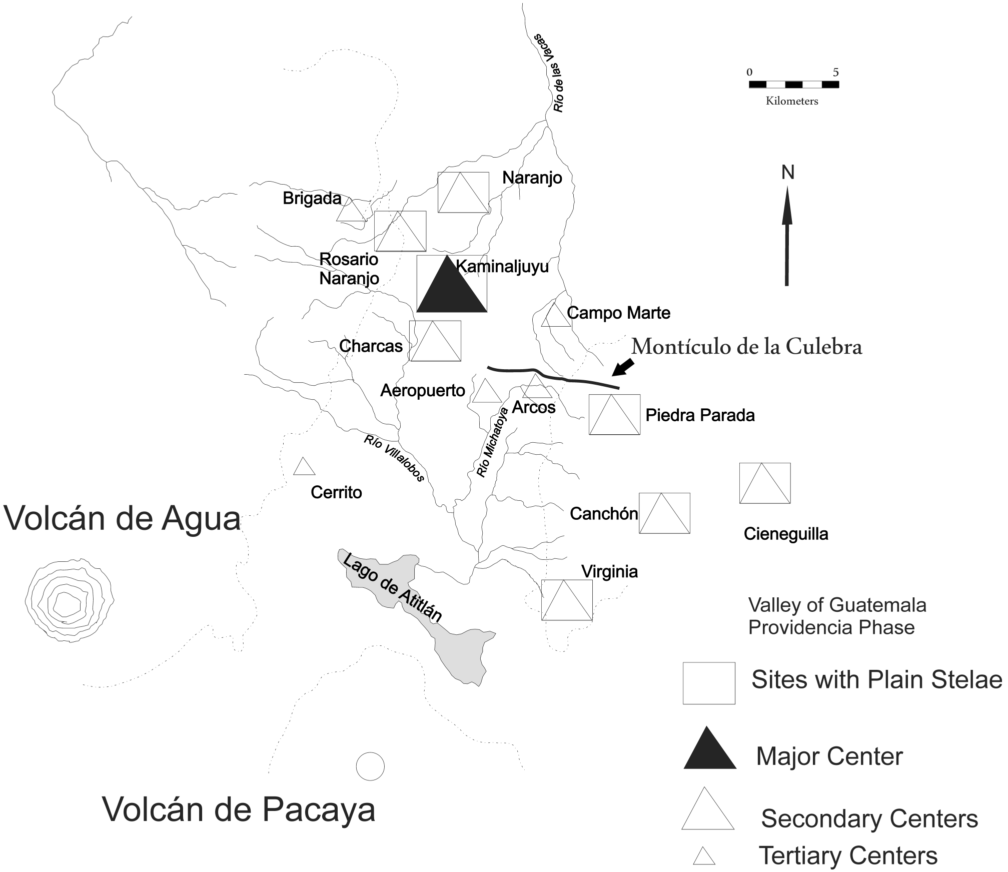
7.15. Map showing the Las Charcas phase occupation at Kaminaljuyu.

The relationship of Kaminaljuyu and Naranjo during the Las Charcas phase is enigmatic. Whether they were competitors, collaborators, or both part of the same expansive settlement is unclear. Both had public architecture during the Las Charcas phase, as well as extensive habitation areas, but it is as yet undetermined whether the remains in and around Kaminaljuyu were continuous or were, rather, a cluster of distinct habitation zones. Further, it cannot be determined at present whether any of the plain stelae known from Kaminaljuyu were erected during Las Charcas times, marking it as a political and ritual center. If Kaminaljuyu was a center, it may be that it emerged from a competitive landscape to win out over its neighbors and become the single dominant site within the Valley of Guatemala. If not, then Naranjo was probably the dominant site within the valley during the first half of the Middle Preclassic, and its habitants, and presumably its rulers, may have been part of the Kaminaljuyu florescence in the Providencia phase.

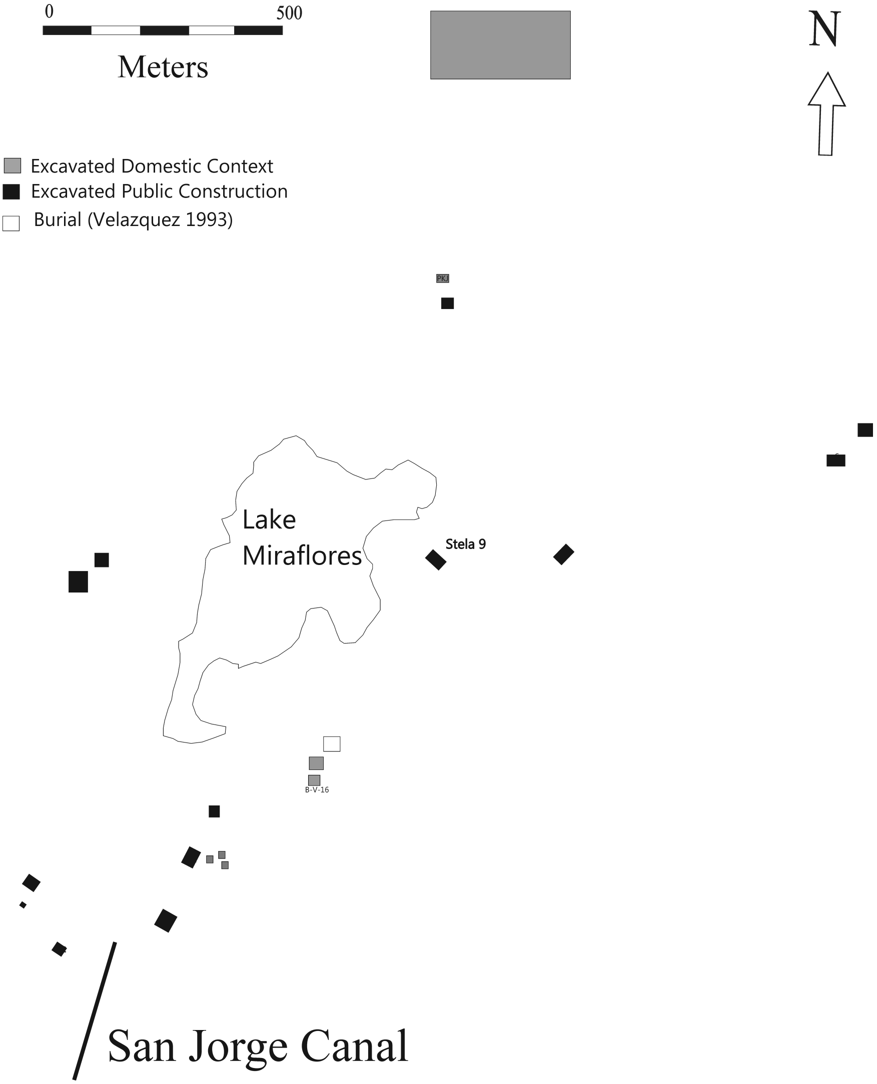
The Providencia Phase

The Providencia phase was a time of growing populations and increasing political centralization. Kaminaljuyu grew in size and may have eclipsed other Las Charcas phase settlements, including Naranjo, Piedra Parada, Santa Isabel, and Virginia. The distributions of population, major architecture, and stone monuments are shown in Figure 7.16. Kaminlajuyu was almost certainly the largest site in the valley by this time, with an extent of over 200 ha. The construction of large buildings increased steadily throughout this period (Escobedo et al. 1996; Popenoe de Hatch 1991), and the tradition of low-relief sculpture was begun. The earliest known low-relief sculpture from the site, Stela 9, was found by Ed Shook in a secure Majadas/Early Providencia phase context. A remarkable burial accompanied by 33 trophy skulls (Velásquez 1990) signals a dramatic change in social relations and the emergence of pronounced inequality. A small platform was built between Mound C-IV-1 and C-IV-4, and the "Edificio Quemado" was constructed at B-I-1 (Ohi 1994a). Figure 7.17 shows locations where public architecture and domestic occupations of the Providencia phase at Kaminaljuyu have been identified.

It is during the Providencia phase that the first irrigation systems linked to Lake Miraflores were built with the construction of the eponymous Miraflores canal (Barrientos Q. 1997a, 1999, 2000; Popenoe de Hatch 1997, 2002b). This early canal was 3.0 m wide, 5.8 m deep and at least 250 m in length (based on what has survived modern disturbances to the canal's original course). It is thought to have drawn water from Lake Miraflores for agricultural fields located south of the main architectural center. The extent of these fields, their composition, and the plants that might have been grown there are all unknown at present time. Popenoe de Hatch thinks it



7.16. Map of Providencia phase sites in the Valley of Guatemala.



7.17. Map of Providencia phase occupation and construction at Kaminaljuyu.

unlikely that staple crops were grown in the irrigated fields, but rather believes that they were used for the cultivation of foods supplemental to the diet, such as vegetables, spices, and root crops (Popenoe de Hatch 1997:96). However, the scale and sophistication of the canal seem inconsistent with such a small scale of cultivation.

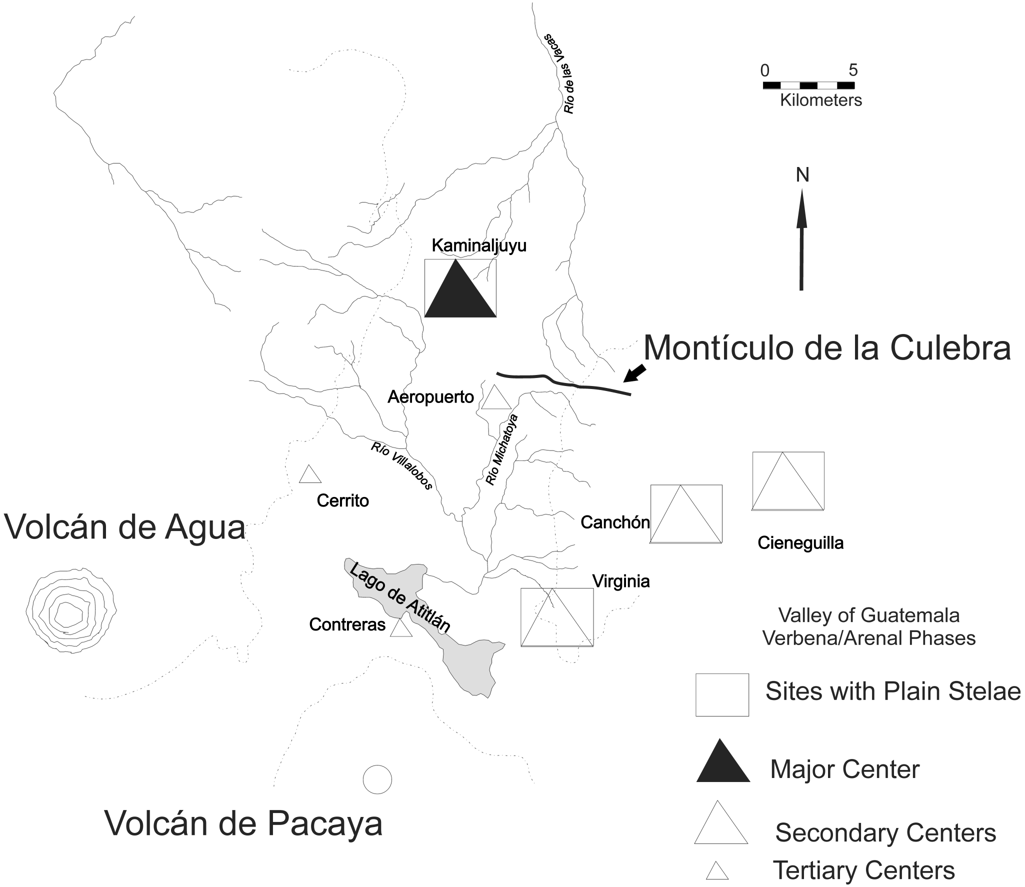
A significant enlargement of the Montículo de la Culebra was undertaken at this time (Martínez Hidalgo and Cabrera Morales 1999; Ortega et al. 1996; Ortega G. 2001; Ortega G. and Ito 2001). This structure raised the mound to a height exceeding 5 m, with a series of steps on both north and south faces. There is no firm evidence that the tumulus functioned as an aqueduct at this time, but given the evidence of a hydraulic function for prior and subsequent phases of construction, that proposition, among others, needs to be considered seriously.

The Late Preclassic Kaminaljuyu State

As the preceding discussion makes clear, political centralization, economic intensification, and the growth of social hierarchy were all underway within the Valley of Guatemala during the Middle Preclassic period. There may have been several political and ritual centers in the Valley of Guatemala during the Middle Preclassic, but by the end of the Providencia phase Kaminaljuyu clearly was in the ascendancy while other centers waned. Naranjo, Piedra Parada, Rosario Naranjo, and Mulatto declined or were abandoned completely by the start of the Late Preclassic Verbena phase. The timing of these events suggests that both population and political power became consolidated at Kaminaljuyu, although the murky dating of southern valley sites, such as Virginia and Santa Isabel, leaves unresolved the extent to which that is the case. Figure 7.18 shows the settlement distribution for the Valley of Guatemala in the Late Preclassic.

Although Kaminaljuyu was a large city and a major power during the Providencia phase, it was during the Late Preclassic Verbena and Arenal phases (ca. 400 BCE–100 CE) that it reached its peak in population, and its elite reached the fullest heights of political and economic power. A number of recent projects at Kaminaljuyu have greatly enhanced our knowledge of the Late Preclassic city (Ohi 1994b; Ohi et al. 1997; Popenoe de Hatch 1997, 2000; Valdés 1997; Velásquez 2006). All of these projects have found substantial Late Preclassic period materials throughout and beyond the mapped portion of the site, and clarified the urban nature of the city in the Verbena and Arenal phases.

The Carnegie map covers approximately 5 km^2 within which more than 200 structures were recorded. The map, of course, includes constructions of all time periods, but the total extent during the Late Preclassic is difficult to estimate. Michels (1979b) estimates the site covered a total area of ap-

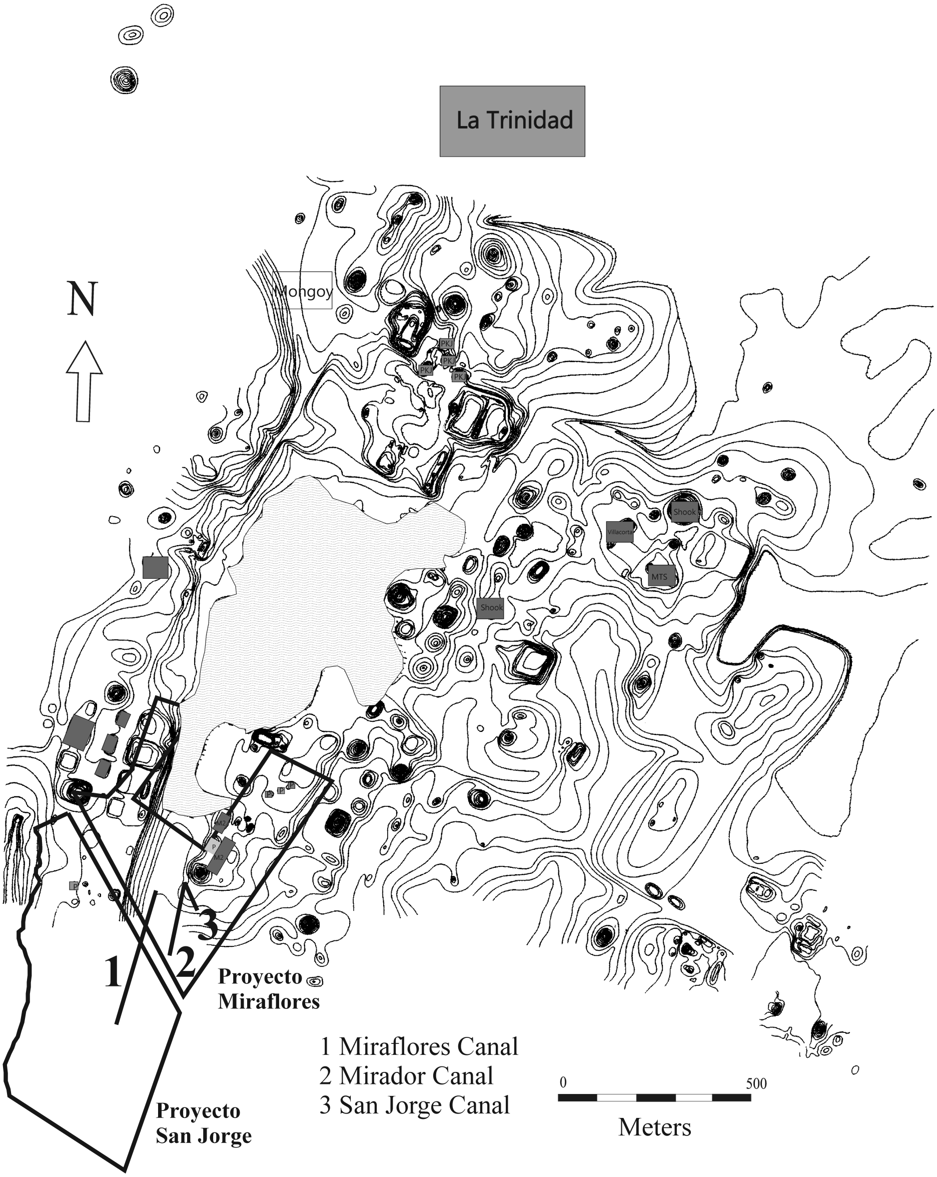


7.18. Map of Late Preclassic sites in the Valley of Guatemala.

proximately 7.5 km^2, but that figure represents its Late Classic maximum. Kaplan (2002, 2011) estimates at least 10 km^2 for the Late Preclassic city and argues that sites often considered separate and distinct settlements, such as Cruz de Cotio to the west, Rosario Naranjo to the north, Cementerio to the east, and Charcas to the south, should be considered part of Kaminaljuyu proper. Including all those sites would raise the city's expanse to over 14 km^2. Ponciano (2000) believes that all occupation north of the Montículo de la Culebra was part of an integrated Kaminaljuyu.

My own estimates are based on the following premises. The southern edge of the site seems to be well delimited close to the mapped portion of the site. The sparse remains found on the southeast quadrant of the Carnegie map by the Pennsylvania State testing program (Michels 1979c) and the trajectory of the documented Miraflores and San Juan canals seemingly indicate a large agricultural zone forming the southern and southeastern boundaries of the site. Large *barrancas* form natural boundaries to the southwest and east, leaving the only doubt about the city´s extent to be its northern limit. In that direction there is good evidence for residential areas north of the mound areas mapped by the Carnegie (Velásquez 2006). Excavations within the Parque la Democracia, approximately 200 m north of Mound C-I-6, found evidence of Preclassic habitation in the absence of visible mounds. On the basis of that evidence, we might stipulate that habitation stretched north to the barranca 100 m from Parque la Democracia. It is possible, perhaps even probable, that such habitation areas lay between the mapped mounds of Kaminaljuyu and the site of Ross, which is only a few hundred meters from the northwest edge of the Kaminaljuyu map. Shook (1952) clearly considered Ross to be part of Kaminaljuyu, despite its distinctive name. However, there is little basis to extend the city's northern limit beyond Ross. It is more than a full kilometer from Ross to Rosario Naranjo, with no empirical basis to speculate that settlement extended across that expanse. It is also a full kilometer from the eastern edge of the Carnegie site map to Cruz Cotio and Garland, again without empirical evidence of intervening settlement.

While it is surely possible that the site was larger, present evidence makes it unlikely that the urban core of Kaminaljuyu exceeded 8 km^2 during the Late Preclassic (Fig. 7.19), including the roughly 25 ha occupied by Lake Miraflores. Ponciano's arguments for a greater Kaminaljuyu extending to the Montículo de la Culebra certainly have merit, but the present evidence does not demonstrate continuous occupation across that large expanse, which



7.19. Map of Late Preclassic occupation at Kaminaljuyu.

would encompass over 30 km^2. As detailed below, there is no problem, in my opinion, in viewing all of this area as politically subject to Kaminaljuyu, which may render debate about precise limits moot. But to view it all as one uninterrupted urban expanse is hyperbolic. Even at 8 km^2, however, Kaminaljuyu can comfortably be described as urban and among the largest of Mesoamerican cities in the Late Preclassic.

Within the central core of Kaminaljuyu, extensive monumental constructions were raised. Ponciano (2000) estimates that 70 percent of the structures visible at Kaminaljuyu were constructed in the Preclassic period, although many were extensively modified during the site's demographic maximum in the Late Classic. Mound E-III-3, the largest mound at the site, was built in the Late Preclassic and stood over 21 m tall (Shook and Kidder 1952). Formal plaza arrangements, including an E-group within zone A-IV (Murdy 1990; Valdés 1997), covered over 2 km^2.

Irrigation and Intensive Agriculture

During the Verbena phase, around 400 BCE, the Miraflores canal was filled in and replaced by the larger San Jorge canal and the smaller Mirador canal (Barrientos Q. 1997a, 1999, 2000; Popenoe de Hatch 2002b; Valdés 1998). The canals functioned up until approximately 100 CE, when Lake Miraflores went dry. The San Jorge canal subsequently was filled during the Santa Clara phase (Barrientos Q. 2000). Smaller ditches have been located perpendicular to the San Jorge canal, which diverted water from the major canals to agricultural fields still attested by areas of organically rich soils and preserved furrows (Barrientos Q. 2000; Valdés and Popenoe de Hatch 1996); a system of raised fields has also been proposed (Barrientos Q. 1997a; Popenoe de Hatch 1997). The Late Preclassic canal system was both larger and more technically sophisticated than the Miraflores canal, including features to control the volume and the speed of the water (Barrientos Q. 1997b), implying that the scale of intensive agricultural production was increased relative to the earlier system.

The intensification of production via the enlarged canal system was almost certainly undertaken under the control of a central authority. What are interpreted as administrative buildings lie along the course of the San Jorge canal. Near the agricultural fields, two Arenal phase contexts, Cocina 1 and Cocina 3, revealed evidence of large-scale food preparation (Popenoe de Hatch 1997), probably for the feeding of large work parties.

Our view of how much economic intensification took place at Kaminaljuyu during the Late Preclassic hinges on whether the Montículo de la Culebra was used as an aqueduct. In the colonial period, the Pinula aqueduct used La Culebra as the base for a brick-lined canal that carried water to Guatemala City (Navarrete and Luján Muñoz 1986). The extant ruins of the La Culebra tumulus run a length of approximately 4.5 km, beginning in the hills southwest of modern Guatemala City and continuing at least to La Aurora, the location of the modern zoo. Ohi (2001) believes that La Culebra ran an additional 1.4 km and terminated near Kaminaljuyu Mounds A and B, but that opinion is untested by archaeological excavation. As mentioned above, although construction of La Culebra began in the Las Charcas phase and was expanded in the Providencia phase, its largest episode of construction was during the Arenal phase, when portions of the tumulus reached 7 m in height. Two recent projects have found remnants of a stone-lined canal along the summit of this structure (Ortega et al. 1996; Ortega G. 2001; Ortega G. and Ito 2001; Valle 2007), indicating a hydraulic function.

Despite these exciting data, the interpretation of La Culebra as a Late Preclassic aqueduct should not be granted lightly. First, Navarrete and Luján (1986) note that it is uncertain whether La Culebra was a single continuous structure, for the earliest colonial written records and plans present it as a series of mounds following the same alignment, rather than being a single structure. It is possible that what had been a continuous structure was pierced and broken after the Preclassic period, but we cannot be certain. Second, the dating of the canal at the top of the Verbena phase structure is not secure. Martínez Hidalgo and Cabrera Morales (1999) report that materials within the canal were mixed and included Classic period remains. That observation is not fatal, as it isn't unreasonable to find later material in an abandoned channel, but it does beg for further investigation. Third, even if the canal did carry water, it may not have been for agricultural purposes. Sophisticated hydraulic systems are known at other Late Preclassic sites in the southern region, including Chocolá, Takalik Abaj, and Izapa (Gómez Rueda 1995; Kaplan and Valdés 2004; Marroquín 2005). These hydraulic systems were not agricultural, but seem to have controlled water largely for symbolic and ritual reasons (and probably also practical reasons such as drainage). The location of La Culebra is precisely atop the continental divide; water falling to the south drained into Lake Atitlán, while water falling to the north drained to the Río Las Vacas and thence to the Río Motagua. Location, therefore, may have had tremendous symbolic, even cosmological, meaning that motivated the construction and use of the canal for the manipulation of water.

That La Culebra functioned as an aqueduct from its inception in the Las Charcas period to the end of the Late Preclassic is a strong and tantalizing possibility, but probably can never be proven. Given the evidence of large and sophisticated canal construction at Kaminaljuyu proper, the engineering of such a project would have been well within the capabilities of Late Preclassic society in the Valley of Guatemala. Like so much of Kaminaljuyu and its hinterland, La Culebra is now so badly damaged that we may never be able to garner sufficient evidence to decide the matter one way or the other.

RECONSTRUCTING SOCIAL AND POLITICAL STRUCTURES AT LATE PRECLASSIC KAMINALJUYU

All of the evidence above makes clear that Late Preclassic Kaminaljuyu was a large city, with impressive ceremonial/public architecture, and a large population supported by intensive agriculture. But what was the nature of political and social organization at the site and within the Valley of Guatemala? Survey data are confused, and data from domestic contexts have not been published in a way that would allow a reconstruction of household life (as opposed to just examining "domestic deposits"). Some broad characteristics of the regional system can be gleaned from extant data, however, and these are supplemented by burial data. Information on exchange systems provides some further insight. Finally, the presence of an enormous sculptural corpus and early hieroglyphic texts is suggestive, but not decisive.

Settlement Patterns during the Late Preclassic

Within the Valley of Guatemala, the population grew substantially during the Late Preclassic period. Much of the growth took place in Kaminaljuyu itself, and additional settlements, both large and small, developed within its immediate environs.

Outside of Kaminaljuyu, the most significant growth took place just north of Lake Amatitlán. There, a number of large sites developed with large mounds arranged in parallel plazas. The sites of Virginia, Santa Isabel, Cieneguilla and Canchón all have such arrangements; Virginia and Santa Isabel also have plain stelae. The dating of these sites is of varying reliability; only recently has Santa Isabel been excavated and the results await publication (Arroyo pers. comm., 2012). The data from Piedra Parada show that the twin plaza site plan was present by the Las Charcas phase, but it may have endured until the end of the Preclassic period in the southern valley. Ceramic data indicate that Virginia and Canchón were occupied during the Late Preclassic, but there are no ceramic data for Cieneguilla. The surface ceramics from Santa Isabel do not include Late Preclassic materials, but the data are from small lots, so they may not be definitive (Murdy 1984; Shook 1952).

We can, for the sake of argument, consider the idea that this southern cluster represents a polity or polities that are independent of Kaminaljuyu. The case for that position is that throughout the Preclassic sequence there are large sites south of the Montículo de la Culebra, with some degree of separation from the sites north of La Culebra. Unfortunately, the imprecise dating of Cieneguilla and Virginia, sites with both major architecture and plain stelae, does not allow us to examine this theory in detail. Arguing against the idea that these major sites are independent of Kaminaljuyu is the evidence for intense interaction between people of Kaminaljuyu and those of the Escuintla area. Medrano (2000) suggests that people and goods flowed freely through the Palín pass, the main route to the coast, which lies immediately west of Lake Amatitlán. Bove's (2011) map of sites with plain stelae suggests a route of highway-like scale between Kaminaljuyu and the coast of Escuintla. Such interaction does not seem likely if the southern valley was governed by a group independent of or hostile to Kaminaljuyu's rulers.

If we hypothesize that the "southern cluster" sites were Kaminaljuyu dependencies, then we can propose a five-tiered hierarchy for the valley, with Kaminaljuyu as the first tier and the multi-plaza sites as the second. Below those come the sites with multiple large mounds and plain monuments, such as Cerrito, Charcas, and possibly Bran (Murdy 1984; Shook 1952). A fourth tier would include sites with large mounds but no large sculpture (I exclude the numerous "mushroom stones" from the category of "large sculpture"), and the fifth would consist of non-mound sites. We might think of combining the third and fourth tiers, but even a four-tier hierarchy suggests a complex system of government compatible with a state, especially when that hierarchy covers 1200 km^2. The common ground plans, the orientation of the site axes, and the absence of stelae representing rulers outside of Kaminaljuyu all suggest that the entire region was dominated by Kaminaljuyu.

Despite my desire to label the Kaminaljuyu polity as a state, I wish to avoid statements that attribute absolute control over all aspects of social and economic life to the elite of Kaminaljuyu. I don't believe there is evidence to show that economic production and distribution, or even ritual, were overseen by "The Kaminaljuyu State." I do, however, think that there is evidence that the elite of Kaminaljuyu had effective power over many aspects of life at the secondary and tertiary centers of the valley.

Social Inequality

Domestic excavation data from Kaminaljuyu and for the Valley of Guatemala as a whole exist, but are not published in a form that allows a quantitative analysis of household differentiation. It might be possible in the future to statistically analyze the numerous bell-shaped pits and their refuse contexts, if all the collections have been preserved. The possible identification of elite residential structures by the A-IV-1 Project (Velásquez and Hermes 1996) is intriguing, but the published data allow little more than general comparison with other residential zones at the site. The excavations there recovered high-status burials, large numbers of storage vessels, and evidence of the production of greenstone and obsidian artifacts (Suasnávar Bolaños 1993; Valdés and Popenoe de Hatch 1996).

From excavation data, the best evidence for social inequality comes from the numerous burials excavated by the many Kaminaljuyu projects. Published burial data include the Carnegie excavations (Shook and Kidder 1952), the Grupo A-IV-1 Project (López 1993), the San Jorge Project, the Miraflores II Project (Valdés 1997), the El Mulatto site excavations (Martínez Hidalgo 2003[1999]; Martínez Hidalgo et al. 2003[1998]), the Mongoy project (Ohi and Ohi 1994), and others.

The Mound E-III-3 excavations revealed the richest Preclassic burials known in the Maya territory, and undoubtedly represent the remains of Kaminaljuyu rulers. Both Tomb I and Tomb II were large, multi-tiered burial chambers constructed using massive wooden timbers. Although heavily damaged before they were excavated by Ed Shook, Tomb I contained over 298 ceramic vessels and 47 additional objects, and Tomb 2 contained 157 ceramic vessels and at least 50 other objects (Figs. 7.20, 7.21). Both date to the Arenal phase.

Another interment in Mound D-IV-2, excavated by Stephen Borhegyi, is accompanied by 71 ceramic vessels, jade, and stone mortars (Murdy 1984). Because of an obsidian blade found "in the neck" of the individual (Murdy 1984), Borhegyi interpreted the feature as a dedicatory sacrifice. Without forensic analysis of the skeleton, however, that conclusion is unconfirmed, and it may well be that the feature is a third high-status burial.

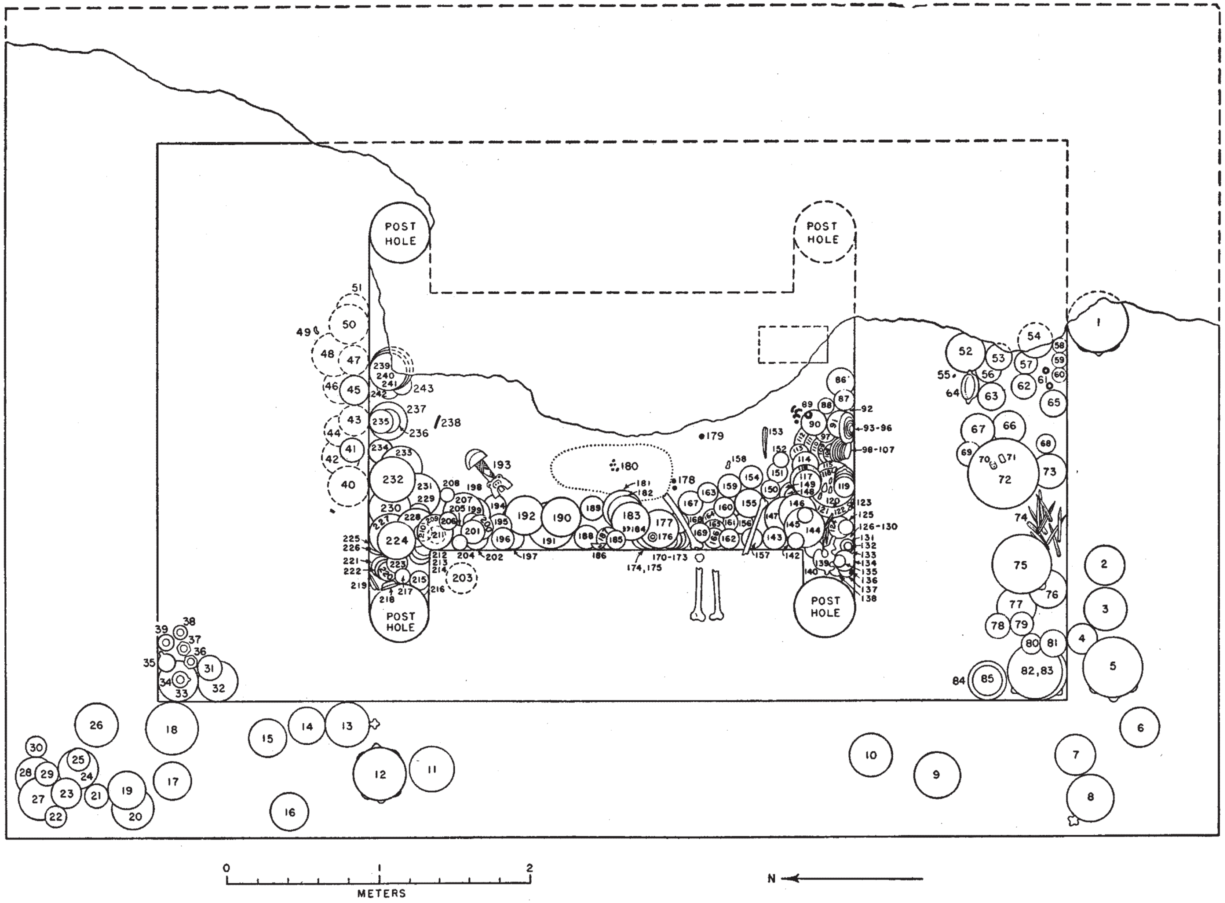
A fourth possible elite burial is the "Tumba Miraflores," excavated by Gustavo Espinoza and described by Murdy (1984). That burial's offerings, if they are such, included Silhouette Sculpture 2, 11 prismatic basalt columns set along the side walls, 17 small ceramic vessels, a large obsidian blade, a complete human skull, an incomplete human skull (the cranial vault) painted red, 6 beads of clay, jade, and sulphur. All those elements rested on a cap of fired clay near the top of the pit containing the primary burial.

Other burials at Kaminaljuyu range from relatively affluent (more than a dozen offerings) to relatively impoverished (no offerings), so that the complete data from Late Preclassic burials demonstrate a wide social gap between rulers and the mass of Kaminaljuyu's populace.

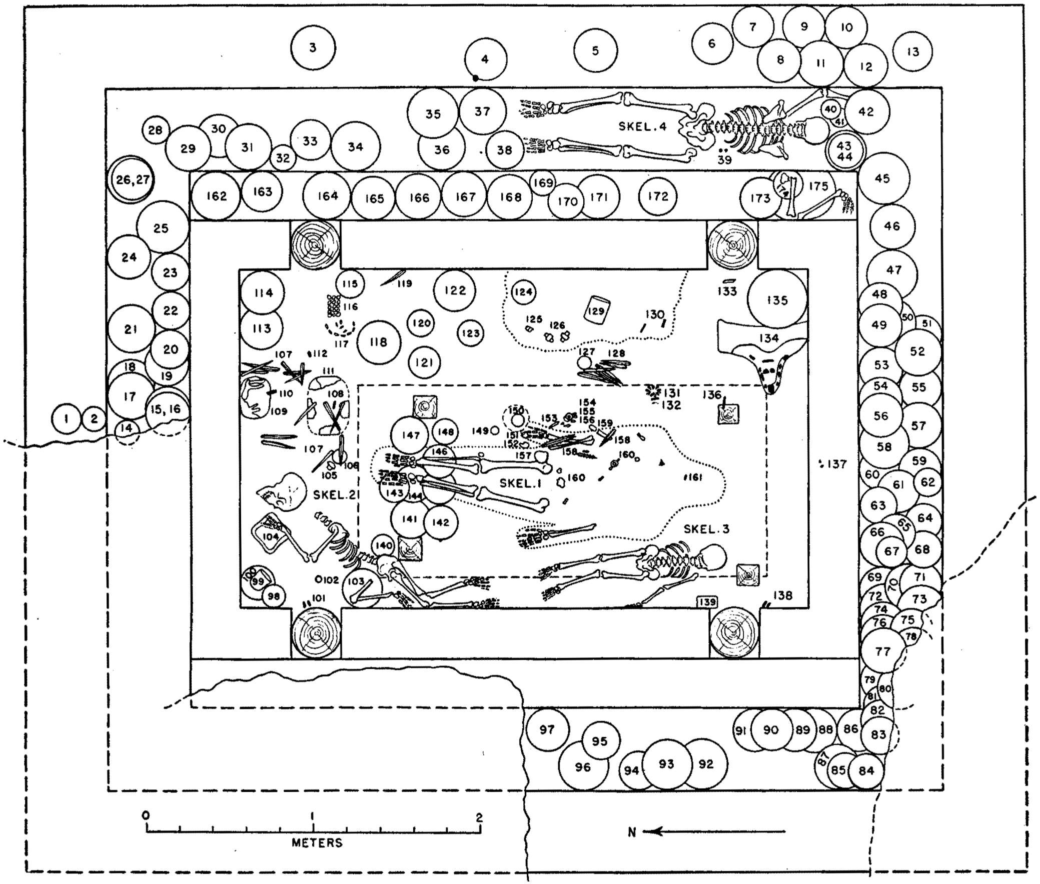
Sculpture

The Late Preclassic florescence at Kaminaljuyu is also marked by an enormous sculptural corpus encompassing many styles, including early Maya stelae with hieroglyphic inscriptions, silhouettes, altars, and potbelly figures. The earliest securely dated text is from Stela 10, excavated by Ed Shook in a Verbena phase context, and dating to no later than 200 BCE if the Shook/Hatch chronology is correct. Curiously, there are no known Long Count dates on any of the sculptures at Kaminaljuyu, although both Altars 1 and 2 have a format much like Takalik Abaj Stelae 1 and 2, which suggests that their eroded central panels did at one time include such inscriptions.

The sculptural corpus of Kaminaljuyu is both large and diverse. Parson's (1986) catalog lists 127 sculptures, Ariadne Prater's catalog (2007) exceeds 250 pieces, and the total may exceed 300 (Ponciano 2000). The extraordinary size of the Kaminaljuyu corpus exceeds that known from anywhere else in Late Preclassic Mesoamerica, and its great diversity has been interpreted as evidence of a multi-ethnic community (Graham 1979; Love 2004; Proskouriakoff 1971).



7.20. Plan drawing of Kaminaljuyu Tomb 1.



7.21. Plan drawing of Kaminaljuyu Tomb 2.

The role of art, especially the representation of rulers, in the construction of an early Maya ideology of rulership has received much attention. The subject matter of the Kaminaljuyu corpus is highly varied, but several themes are represented with great frequency. The first is that of the presentation of subjects to rulers (Doering and Collins 2010; Fahsen 2002). In these scenes, kneeling individuals are shown before rulers who are enthroned or standing with full regalia. Fahsen (2002) interprets the kneeling individuals as captives, but Guernsey (pers. comm., 2006) and Doering and Collins (2010, following Guernsey) note that their postures and gestures may reflect respect and submission, but not necessarily capture. The second theme is deity impersonation, in which rulers are depicted with costumes and/or masks representing divine beings. These latter representations embodied new ideologies of rulership based upon creation mythologies that anticipate some narratives found in the *Popol Vuh* text (Guernsey 2006; Guernsey Kappelman 2001, 2002).

Kaplan (2001, 2002) argues that these sculptures are evidence of early sacred kingship at the site and thus imply the existence of a state-level political system. As previously noted, I believe that it is a fundamental mistake to equate rulership with the state. Rulership in Mesoamerica has a long history that precedes clear evidence of states, and titles of rulership can be used by governing polities of greatly varying sizes (Martin and Grube 2000). Nor can a state-level political system be assumed solely on the basis of ideological statements by the elite, whether representational or textual. It is the nature of such ideologies to aggrandize and exaggerate. There are many examples of rulers who dress up in costumes, proclaiming themselves to be divine, while governing political systems that are, fundamentally, something less complex than states, whether we call them chiefdoms, Middle Range Societies, or something else (Krader 1968). However, I take the sculptures and texts to represent evidence for firm social stratification and the presence of a Late Preclassic elite that possessed economic wealth, political power, and literacy.

Kaminaljuyu and the Valley of Guatemala: A Summary

Centralized political power in the hands of the elite is well documented at Kaminaljuyu in the Late Preclassic period by the mass of public construction, monument erection, and intensive irrigation-based systems of subsistence production. Social stratification is documented by extreme differences in grave offerings and by the ideology presented in sculpted monuments. However, these traits, of themselves, do not define a state. States, even those that we label as city-states, are regional political systems. Even the classic city-states of Greece and Sumeria controlled hinterlands, and it is worth recalling that the original definition of the state as a four-tiered hierarchy was based upon the Sumerian polities that we call city-states. The more extensive "territorial state" (Trigger 1993, 2003) is a different type of entity and may, in fact, be considered a type of empire. Moreover, the most significant distinction between states and simpler forms of government may best be thought of as one of bureaucracy (Service 1975). States have more complex systems of government that involve the formation of institutions for administration. In the absence of written records, and perhaps even with them, a regional settlement system is the best evidence for the existence of such administrative structures (Spencer and Redmond 2004). The most convincing evidence, therefore, for a Kaminaljuyu state in the Late Preclassic comes from its control of a stratified regional settlement hierarchy that encompassed all of the Valley of Guatemala. The distribution of sites with large public mounds, plain stelae, and other monuments within the Valley of Guatemala suggests that these sites were second, third, and fourth tiers of control. Regrettably, there is still much we do not know about how the Kaminaljuyu polity operated both economically and politically, but its status as a state should be in doubt no longer.

Kaminaljuyu's Influence Outside of the Valley of Guatemala

Having presented the case for a state-level political system within the Valley of Guatemala, it remains to examine whether Kaminaljuyu's political influence extended beyond the valley's limits. Kaminaljuyu is posited by some (for example Kaplan 2001, 2002, 2011) to be the center of a larger polity that encompassed most, if not all, of the Miraflores Ceramic Sphere. I argue here, however, that the Miraflores Sphere was a region of cultural and economic interaction, but not an integrated political system, within the large Southern City-State Culture.

Despite the general perception that Kaminaljuyu was a dominant force in the Guatemalan highlands during the Late Preclassic period, there is no evidence that it exerted direct political control outside of the Valley of Guatemala. In fact, the areas immediately west of the Valley of Guatemala show less evidence of interaction with Kaminaljuyu's population in the Late Preclassic than in previous periods (Braswell and Robinson 2011; Love 2011; Popenoe de Hatch 1997). During the Providencia phase, the ceramics of

Chimaltenango and Sacatepequez are very similar to those of Kaminaljuyu, hence the often-used Providencia/Sacatepquez phase name. At the beginning of the Verbena period, however, the ceramics of those regions show increasing divergence from Kaminaljuyu, with fewer shared attributes and little evidence of direct exchange (Popenoe de Hatch 1997; Shook and Popenoe de Hatch 1999). Economic data also indicate decreasing interaction between Kaminaljuyu and its neighbors to the west. During the Providencia phase, Kaminaljuyu ceases to receive obsidian from the San Martín Jilotepeque source, which had previously provided 12% of the obsidian consumed (Braswell and Amador 1999). From that time on, obsidian from San Martín Jilotepeque flowed exclusively to the west, through the highlands and to Pacific piedmont sites, where it represented a majority of the obsidian at San Andrés Semetebaj, Takalik Abaj, and sites in the Chiapas highlands (Love 2011).

While Kaminaljuyu's economic contacts and cultural influences extended along trade routes into the northern highlands (Sharer and Sedat 1987) and even farther into the Maya lowlands, all indicators are that its primary economic networks, cultural contacts, and possible political influence lie to the south and the east, within the Miraflores Ceramic Sphere (Demarest and Sharer 1986; Demarest 2011) and the larger Southern City-State Culture (Love 2011). In addition to the shared ceramic styles within this zone, the obsidian exchange network of El Chayal reached to the coast and thence to the west, toward the Soconusco. It should be noted, however, that the sites of western El Salvador within the Miraflores Ceramic Sphere, such as Chalchuapa, derived the bulk of their obsidian from the Ixtepeque source, indicating their own economic independence from Kaminaljuyu.

Kaminaljuyu sat in a prime location to control the exchange of many products across the Central Guatemalan cordillera. In addition to obsidian, other important items that flowed through the trade systems certainly included jade and possibly cacao (Popenoe de Hatch 1997). Cotton textiles and salt from the coastal plain might also have flowed into the highlands via Kaminaljuyu. While individuals at Kaminaljuyu may have profited from the trade networks that intersected at the site, there is no evidence that the Kaminaljuyu state organized the production and distribution of the commodities that passed through the Valley of Guatemala. Recent survey in the area of the El Chayal quarries shows no evidence of large sites, workshops, or control facilities (Mejía Amaya and Suyuc Ley 1998, 2000). There is some limited evidence of jade working in the A-IV-4 area and of prismatic blade manufacturing in the Miraflores II project area (Suasnávar Bolaños 1993), but no indications that such work was centrally organized, nor that it was of large scale. There is much better evidence for organized production on the Escuintla coast (Bove 2011), reinforcing the model that Kaminaljuyu's elite benefited from trade, but did not control it. Kaminaljuyu may have been either an *entrepôt* (Abu-Lughod 1991) or a port of trade (Brown 1977; Chapman 1971) for traders moving across the continental divide rather than a producer of finished goods.

The shared ceramic styles of regions within the Miraflores Sphere resulted from a complex set of interactions between individuals and groups throughout the central highlands of Guatemala and those living on the Pacific coast. Sourcing studies over a long period have shown that ceramics in the Miraflores sphere were not traded over great distances (Demarest 2011). These studies in tandem indicate that the Miraflores Ceramic Sphere was not formed by the simple imitation of Kaminaljuyu ceramics at other sites but through the exchange of ideas in both directions, as some important Miraflores types originated on the coast.

Similarly, the potbelly style of sculpture, sometimes linked to the Miraflores Ceramic Sphere and read as a marker of Kaminaljuyu influence, had its center of greatest occurrence on the coast of Escuintla (Guernsey 2012; Rodas 1993). The distribution of the form extends far beyond the area of the Miraflores Sphere into Chiapas and beyond (Guernsey 2012; Scott 1988), but overlaps with the early Southern Maya style of relief sculpture only in some locations, such as Kaminaljuyu and the Late Preclassic piedmont centers of Cotzumalguapa, Chocolá, and Takalik Abaj. In short, Kaminaljuyu is often seen as the source of cultural traits that in fact originated at many different points within the Southern City-State Culture.

Bove (2011) has recently critiqued the idea that the Miraflores Ceramic Sphere was based on the political hegemony of Kaminaljuyu. He notes first that the distribution of the Miraflores Sphere ceramic types is not uniform throughout the coast of Escuintla.

> If the "Miraflores political sphere" stretched from Kaminaljuyu to the small Finca Arizona site eighty-five km directly south on the coast how did it bypass Los Cerritos-Sur? Los Cerritos-Sur is a huge Middle-Terminal Formative regional center only fifty-six km directly south of Kaminaljuyu and strategically located to control movement at the foot of the two major passes into the central highlands. Los Cerritos-Sur has nu-

> merous obsidian workshops, monumental sculpture in the Monte Alto style of potbellies and heads but no Kaminaljuyu style sculpture or any other indication of Kaminaljuyu political, social, economic, or ideological control (Bove 2011: 113).

Most importantly, Bove sees the political systems of coastal Escuintla as consisting of a number of small polities, without overarching integrative mechanisms:

> In central Escuintla the sites are regularly distributed. Although there are significant size differences, Thiessen diagrams...suggest a high degree of spatial regularity and by inference, economic competition. Rank-size curves...of this and the ensuing Late-Terminal Preclassic period are convex suggesting that no single site dominates the region (Bove 2011:102).

The regional system described by Bove is not what one would expect if Escuintla were part of a Kaminaljuyu territorial state *cum* empire. Instead, the data suggest that the Miraflores Ceramic Sphere was the product of factors other than political integration.

The distribution of Maya-style stelae along the piedmont, especially at Cotzumalguapa, Chocolá, and Takalik Abaj, is also often discussed as though it demonstrates a homogenous "Southern Maya" regional culture. But iconographic similarities merely demonstrate elite interaction, not political integration. Obviously, there were elite interactions across the entire region that are reflected in writing, calendrics, and iconography (Guernsey 2006), but those interactions extend across ethnic lines and go far beyond the Southern Maya Region, into the Maya lowlands, and as far as the Gulf Coast. Politically, however, the landscape of the Late Preclassic southern zone was fragmented, with polities of varying size and varying degrees of centralization.

DOS CIUDADES, UN CAMINO: THE GROWTH OF SOCIAL COMPLEXITY AND THE ORIGINS OF THE STATE IN THE SOUTHERN MAYA REGION

The development of social complexity in the Southern Maya Region was a process played out over a period of 1500 years. It was not a tale of smooth, consistent growth, but rather a process punctuated by episodic collapse and subsequent reintegration. The two cases studied show the diversity of forms that a state society, even when restricted to a subcategory of city-state, can take. Research into this region and this topic is not yet mature, the data are uneven, and there are many gaps in our knowledge, but the general outlines of regional prehistory are now taking form.

In the coastal case, El Ujuxte developed following the collapse of elite power at La Blanca, more or less as a direct successor and without a host of direct competing centers. During the transition from the Middle to the Late Preclassic, the elite of El Ujuxte established dominance over a large region of the coast, going beyond the prior model of La Blanca in size and scope. The El Ujuxte polity endured longer than any previous polity in the region, perhaps as long as 600 years. In the Guatemalan highlands, the development of the Kaminaljuyu polity was more gradual through the course of the Middle Preclassic, with a dramatic growth in size at the onset of the Late Preclassic, when Kaminaljuyu emerged out of a crowded political landscape within the Valley of Guatemala. A number of early competitors to Kaminaljuyu were present in the Middle Preclassic, but eventually were eclipsed or perhaps subjugated.

In both cases, El Ujuxte and Kaminaljuyu, we see clear evidence of increasing elite power in the Late Preclassic period. Wealth became increasingly concentrated, the labor expended in monumental construction surged, and subsistence production was intensified. An ideology linking rulership to divine forces of creation and renewal was manifested, although in varying ways, through monuments, architecture, and ritual. At Kaminaljuyu, but not El Ujuxte, the existence of early texts attests to the creation of new forms of knowledge that further cemented elite authority.

The household data from El Ujuxte point to greater elite control over various aspects of the economy. At Kaminaljuyu we lack systematic household data, and also lack clear information about the basis and extent of elite power beyond the ability to harness labor and support artists. We do not understand fully the extent of the Kaminaljuyu elite's involvement in economic production and long-distance exchange. That is, we do not know whether elites actively organized the economy or merely facilitated it. We also do not fully understand the extent to which the intensification of subsistence production through irrigation technology contributed to the city's wealth.

It is clear from these two examples that the early states of the Southern City-State Culture were not all the same thing. Kaminaljuyu and El Ujuxte, along with Takalik Abaj, Izapa, and other early states, were all subject to the same broad historical patterns of Preclassic Mesoamerica, but each had a distinctly local history. Despite their intellectual, cultural, and economic ties, each has something different to teach us about the nature of early states.

To close, I will return to the opening thoughts of this essay, and ask what is the value of the state as a concept? How does identifying Kaminaljuyu, El Ujuxte, and other cities as states increase our understanding of them? Does saying that the early city-states formed a network of economic and cultural interaction elucidate or obscure their nature?

I see value in the concept of a state, even if we discard other aspects of the neo-evolutionary model and even if we acknowledge that early states were not all the same thing. If used properly, the concept of state allows us to recognize just how distinctive they were compared to the societies that preceded them, as summarized in the following passage from Morton Fried (1960:36):

> the notion of the state is something more than formally organized society, or even the aggregate of institutions and apparatus of social control at some specified level of complexity. Central to the concept of a state…is an order of stratification, specifically a system whereby different members of society enjoy invidiously different rights of access to the basic productive necessities of life…Indeed the state is something more than this—a formal organization of power including but going beyond the social control functions of kinship. This formal organization of power has as its central task the protection (and often the extension) of the order of stratification.

The concept of a state allows us to analyze political structure apart from the development of class and from the practices of "high culture" that reinforce and legitimate class distinctions. Once those concepts are separated we can more productively, and more profoundly, address the "how" about social life, culture, and the structures of political power. Within the present study, the concept of state helps us to recognize the importance of the transition from the Middle Preclassic to the Late Preclassic within the Southern Maya Region and beyond. Social inequality, titles of rulership, and high culture existed earlier, but it was in the Late Preclassic period that "this formal organization of power" reached an unprecedented level that dramatically altered how people lived their lives. Undoubtedly, the "how" questions are ultimately more interesting than arguments over terminology, but in this case, the "what" and the "how" are bound up together. Understanding the "how" of early Mesoamerican states and the "how" of many dimensions of social life ultimately begins with a good argument about what a state is and when it comes to be.

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8

Cultural and Environmental Components of the First Maya States: A Perspective from the Central and Southern Maya Lowlands

RICHARD D. HANSEN

> Archaeology is the only discipline that can tell us how government began, the nature of the world's first governments, and the role those governments played in the organization of their respective political systems. (Haas 1982:216)

> Archaic states are stratified into a series of classes including full-time occupational specialists, and are topped by a highly centralized, hierarchical government that rules a territory with more or less defined boundaries. (Sharer 1994:139)

The search for a comprehensive understanding of the development of social and political complexity in Mesoamerica has attracted considerable interest and prompted significant debate. Much of the controversial posturing that has surrounded this topic can be attributed to the lack of adequate or uniform definitions, incomplete data, faulty or inadequate interpretations of available data, and the exploitation of obscure semantics to justify specific theoretical positions. Recent archaeological investigations throughout the Maya lowlands have provided new data pertaining to the sophistication and complexity of early Maya "civilization." The resultant information, reviewed here in diachronic format and in synchronic contexts, provides an empirical foundation for conclusions and hypotheses that can be further investigated and tested.

This chapter proposes that the first lowland Maya states began to emerge in the Middle Preclassic period (ca. 1000–400 BCE), perhaps jointly with the developments at La Venta, and flourished during the Late Preclassic period (ca. 300 BCE–150 CE), led by developments in the Mirador Basin of northern Guatemala, and southern Campeche, Mexico. The resultant hypotheses derived from a series of multi-disciplinary investigations suggest: (1) The Preclassic lowland Maya developed one of the first states in Mesoamerica through a sequentially defined process that evolved into a four-tier hierarchy of settlement distribution and socio-political organization within a specific territorial area; (2) the origins of states in Mesoamerica, and in particular within the Mirador Basin, are found in the Middle Preclassic period, between ca. 1000 and 400 BCE, with more expansive states appearing by the latter part of the Middle Preclassic and the early Late Preclassic periods (ca. 400–200 BCE); (3) lowland Maya states were the result of autochthonous processes likely inspired and spurred by competitive ideologies and peer polity interactions, consistent with other models of political and economic evolution; (4) in a two-way process other Mesoamerican societies, including those on the Gulf and Pacific coasts and in the Mexican Highlands (see Chapters 3–5, this volume), provided important ingredients to contemporaneous Mesoamerican social and political identities which the lowland Maya adopted, adapted, and integrated in their social memory, while contributing some of their own innovations to other Mesoamerican societies in the process; (5) the economic, architectural, and ideological components of early lowland Maya society provided the cultural foundations for later Maya states in the Classic period.

The explanations for the rise of social and political complexity in Mesoamerica and, in particular, in the Maya lowlands have implications of global concern. The objectives of such paradigms are (1) to define the evidence for the emergence of Maya states; (2) evaluate extant models for the emergence of Maya states; and (3) to refine or replace models for the emergence of Maya states (see Chapter 1, this volume).

State formation in Mesoamerica has received considerable attention, often resulting in varied or opposing perspectives (e.g., Sahlins and Service 1960; Krader 1968; Sanders and Price 1968; Marcus 1976; Wright 1977, 1978, 1986; Jones and Kautz 1981; Johnson and Earle 1987; Sanders and Webster 1988; Yoffee 1988, 2005; Flannery 1972, 1995; Feinman and Marcus 1998; Flannery and Marcus 2000; Spencer and Redmond 2004; Blomster et al. 2005; Flannery et al. 2005; Stoltman et al. 2005; Hansen 2005; Neff 2006; Neff et al. 2006a, 2006b; Sharer et al. 2006; Sharer 2007; Hansen and Suyuc-Ley 2011). However, there also appear to be areas of common ground. For example, many theoretical discussions of the evolution of complex societies accept the development of "big men" or "chiefs" from simple "egalitarian" societies that existed with less-complex economic structures (e.g., Service 1962, 1975; Lindstrom 1984; Johnson and Earle 1987; Gregg 1991; Earle 1997). Such discussions often propose that in the initial stages of societal development individuals attained higher rank or status on the basis of skills, talents, personal wealth, merchant acumen, or other capabilities that propelled them into administrative or leadership roles, becoming "accumulators" or "aggrandizers" (Hayden and Gargett 1990; Clark and Blake 1994; Rathje 1971, 1972, 2000). Status and rank differentiations of individuals and, subsequently, lineages have been posited as a response to societal restraints or opposition to the accumulation of personal power, and to maintain or expand wealth and power structure (see Clark and Blake 1994; Earle 1991b, 1997). In time, elevated status apparently became invested in specific lineages or similar groups, and leadership positions acquired by achievements became subordinate to those inherited from lineage or group membership, sanctioned and recognized by the remainder of society. The formation of such hierarchical power structures has universal anthropological implications, but the testing of such developmental processes can only be obtained from areas where developmental sequences can be defined from diachronic and synchronic perspectives furnished by detailed archaeological research (Haas 1982:216).

Mesoamerica is an area in which the process of socio-political and economic complexity can be critically evaluated (e.g., Adams 1977; Clark 1991, 1994). The relatively close proximity of resources and the linguistic and environmental diversity within Mesoamerica provide test cases for defining the chronology and causal factors of evolving complexity. Although the well-known "mother culture" model calls for a single origin or point of influence for all Mesoamerican civilizations (e.g., Clark 1990), examination of numerous examples throughout the world suggests that states generally do not emerge in isolation, a subject that prompts a discussion of "primary states" versus "secondary states," and the formation of "Sister States" (see below). The "mother culture" model has been criticized (Hammond 1988; Flannery and Marcus 1994, 2000; Marcus and Flannery 1996; Clark and Hansen 2001; Hansen 2005) for conclusions unsupported by available data, including assumptions of primacy based on inexact chronologies with leeways of 100 to 200 years or more, while ignoring chronologies and comparable developments in other areas. Further problems lie in wrangling over semantics and definitions, especially when it comes to defining the first appearance of states in Mesoamerica. Most of these problems and issues were noted in the 1970s and 80s. In the volume, *The Transition to Statehood in the New World* (Jones and Kautz 1981), each chapter was followed by "a discussion of certain definitional problems that still plague the archaeology of state formation, concluding, perhaps unfashionably, that definitions should be as fully grounded empirically as they are logically constructed from theoretical premises" (Jones and Kautz 1981:3).

It is highly likely that Maya states emerged by a far more complex process than can be comprehended by previously proposed models. An improved understanding of this process must rely on the application of more sophisticated archaeological methodologies, including greater utilization of multi-disciplinary approaches, more advanced technologies, improved chronometric strategies, and investigations conducted on a regional scale. Long-term, comprehensive regional investigations hold many advantages including a broader, multi-disciplinary perspective based on multiple lines of evidence. Wide-reaching and in-depth investigations enable the evaluation and testing of multiple hypotheses, identification of multi-causal factors, and the definition of alternative models for the rise of complexity within specific regions (Sharer et al. 2006).

While long-term comprehensive investigations have been conducted in the Maya lowlands since the mid 20th century, only recently has this kind of research focused on the critical Preclassic era. These Preclassic archaeological and ecological investigations, such as those in the Mirador Basin of northern Guatemala and in several other regions of the Maya lowlands (e.g., Estrada-Belli et al. 2004a, 2004b, 2006a; Andrews and Robles 2004; Anderson 2011), have revolutionized our understanding of the origins of Maya states. We now have evidence for the centralization of social, economic, and political systems and the emergence of a hierarchical sociopolitical structure, as well as the institution of sacred kingship. The results of these archaeological and ecological studies provide the foundation for models and hypotheses that can be further tested. The Mirador Basin was, apparently, a crucial core of these Preclassic developments in the Maya lowlands. As presented below, the rise to social and political complexity in this region was a process that derived from a combination of economic, environmental, and ideological components enabled by agricultural productivity, specialized production systems, the mobilization of labor, extensive communication and interaction systems—especially evident in a causeway network linking major and minor polities into a cohesive unit—and the manipulation of architectural art and religious ideology.

Over the past two decades, research in the Basin has led to a hypothesis that state level organizations first emerged in northern Peten and southern Campeche during the Middle Preclassic period (ca. 1000–400 BCE). This hypothesis is based on evidence for the Middle Preclassic development of centralized administrative hierarchies within a specific territorial area. Beyond the Mirador Basin, surveys and settlement studies in Peten, Campeche, northern Yucatan, and Quintana Roo have identified an astonishing number of Middle Preclassic settlements with probable tiered hierarchies by this period (Robles-Castellanos and Andrews 2003, 2004; Robles-Castellanos 2004; Andrews and Robles 2004; Rissolo and Ochoa 2002; Sprajc 2002, 2003, 2002–2004, 2005a, 2005b, 2005c; Sprajc and Grube 2008; Estrada-Belli et al. 2006; Anderson 2011; A. Andrews, pers. comm. 2006; K. Reese-Taylor, pers. comm. 2011). These early settlements are in areas thought to be vacant in the Middle Preclassic period less than two decades ago.

The appearance of complex political, social, and economic institutions in the Maya lowlands, in a process comparable to developments seen on the Gulf coast and in the highlands of Mexico (Clark and Hansen 2001; Garber et al. 2002; Hansen 1992a, 1992c, 1998, 2001a, 2005, 2012a; Hansen and Guenter 2005; Hansen and Balcarcel 2008; Hansen, Howell et al. 2008; Hansen and Suyuc-Ley 2011; Marcus and Flannery 1996; Reilly 1994; see also Chapters 3–5, this volume). The dynamic processes of the formation of state-level administrative hierarchies can best be understood through the observation of the earlier stages of this development and by understanding the political, geographical, and economic environment in which it originated (see also Clark 1991; Clark and Blake 1994; Earle 1997:14).

During the Late Preclassic period (ca. 300 BCE–150 CE), the process of political, social, and economic centralization reached its apogee. Initial data from El Mirador and other lowland sites such as Edzna, Cerros, Cuello, and Colha promoted the notion that Maya sacred kingship and related institutions that have traditionally defined Maya civilization began in the Late Preclassic period (e.g., Freidel 1981, 1985, 1986b; Hansen 1982, 1984; Matheny 1986a, 1986b, 1987; Freidel and Schele 1988a, 1988b; Fields 1989; Reese-Taylor 1996; Kappelman 1997). Subsequent research, however, suggests that the architectural and cultural florescence of the Late Preclassic period represents the culminating manifestations of the growth of complexity, including the presence of sacred kingship, which began centuries earlier during the Middle Preclassic (Hansen 1992a, 2012a; Hansen and Guenter 2005; see also Estrada-Belli, Bauer et al. 2003; Bauer 2005a, 2005b; Estrada-Belli 2006).

The process of Preclassic state development in the Maya lowlands has a particular focus in the Mirador Basin of northern Guatemala (Hansen and Suyuc-Ley 2011), although it is clear that other lowland regions, including the sites of Holmul, Cival, and San Bartolo, were also important players, either in their own developmental trajectories or as part of a Mirador hegemony. The diachronic processes of economic, architectural, and ideological complexity indicate the autochthonous manner by which the first Maya states emerged. It did not require contact with, or inspiration from, the Olmec to enlighten the Maya on these developmental processes, particularly since they were already in place on a pan-Mesoamerican scale. What this highly sophisticated development did require, however, was an acute awareness of the ideological systems and associated political, economic, and religious symbolism which created a competitive agenda to propel the Maya, as well as other Mesoamerican societies, into increasing displays of political and economic prowess by the late Middle Preclassic period. The great Olmec capital of La Venta and the monumental capitals in the Mirador Basin were emerging simultaneously. However, the cultural emulations and variations between these societies are more consistent with a "peer-polity" and "competitive neighbor" process of development than a "mother-daughter" relationship. The developmental consequences of competing ideologies among major powers have been evident in the 20th century as well as in ancient times. Throughout history, social competition has driven technological, political, economic, and scientific innovations forward and thereby promoted the growth and increasing complexity of societies.

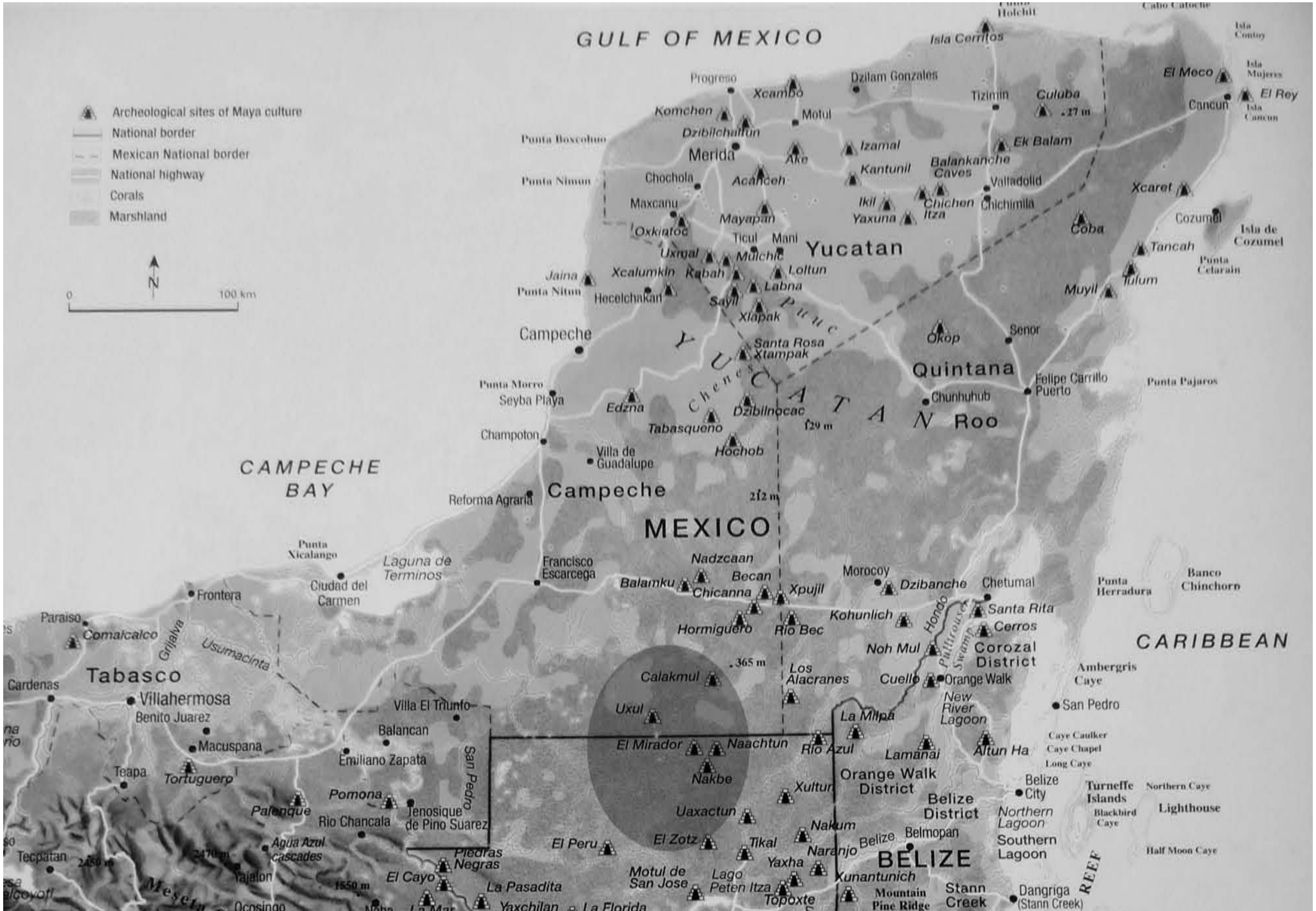
GEOGRAPHICAL AND HISTORICAL CONTEXTS

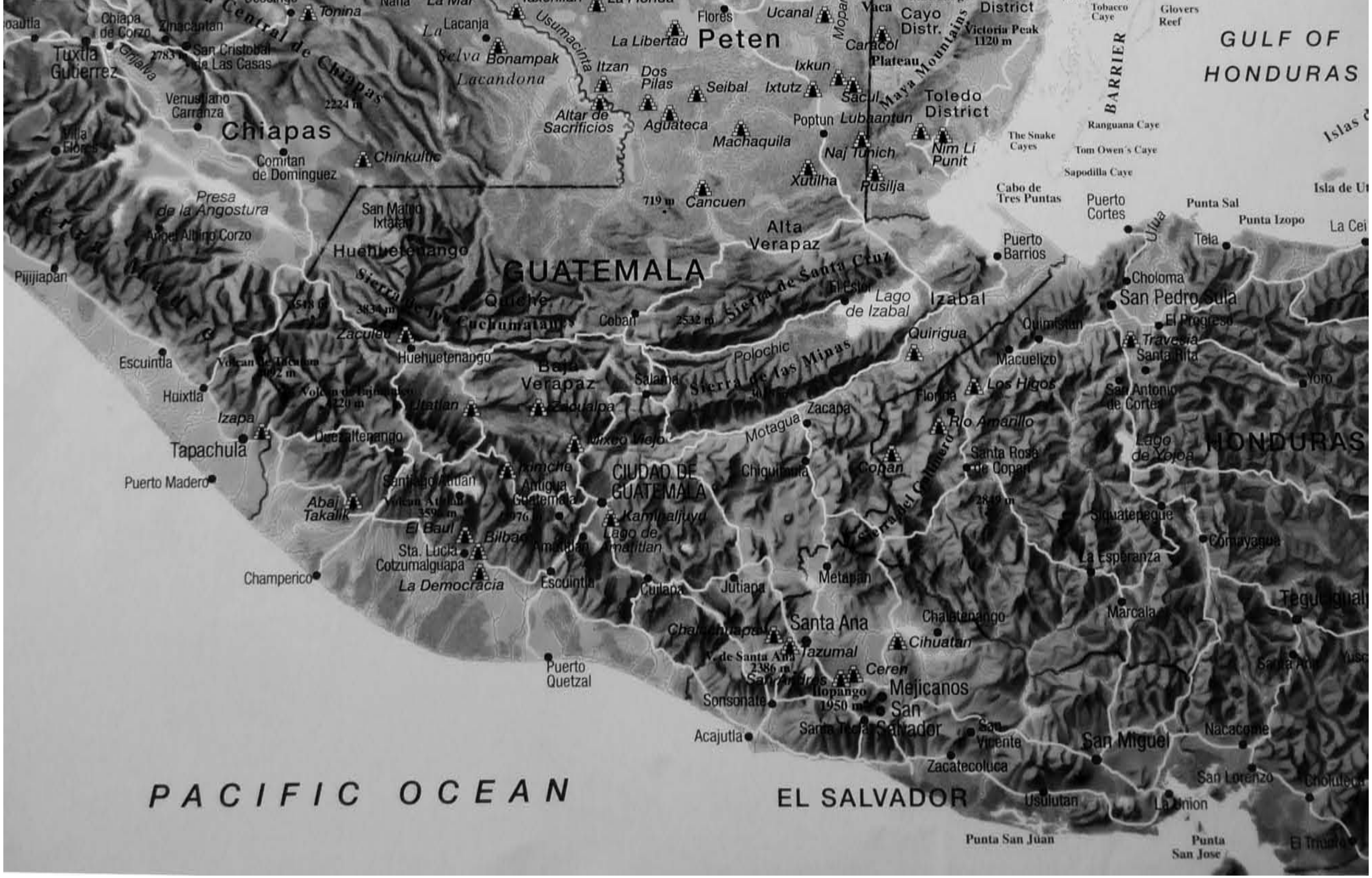
The Mirador Basin is located in the extreme north-central area of the department of Peten, Guatemala, and the extreme southern part of Campeche

(Fig. 8.1). The Basin is circumscribed by a narrow range of karstic hills on the north, east, and south, with lower and less pronounced elevations on its western edge. These natural features form a rounded, triangular-shaped depression characterized by a high percentage of what are now tree-covered seasonal swamps known as *bajos* (Fig. 8.2). Primary drainage near the sites of El Mirador, Wakna, and Nakbe extends towards the Candelaria River to the northwest, which ultimately drains into the Laguna de Terminos of the Gulf coast. This drainage system is important as it signals a possible route to, and a possible point of contact with, the Gulf coast cultures and other regions of Mexico.

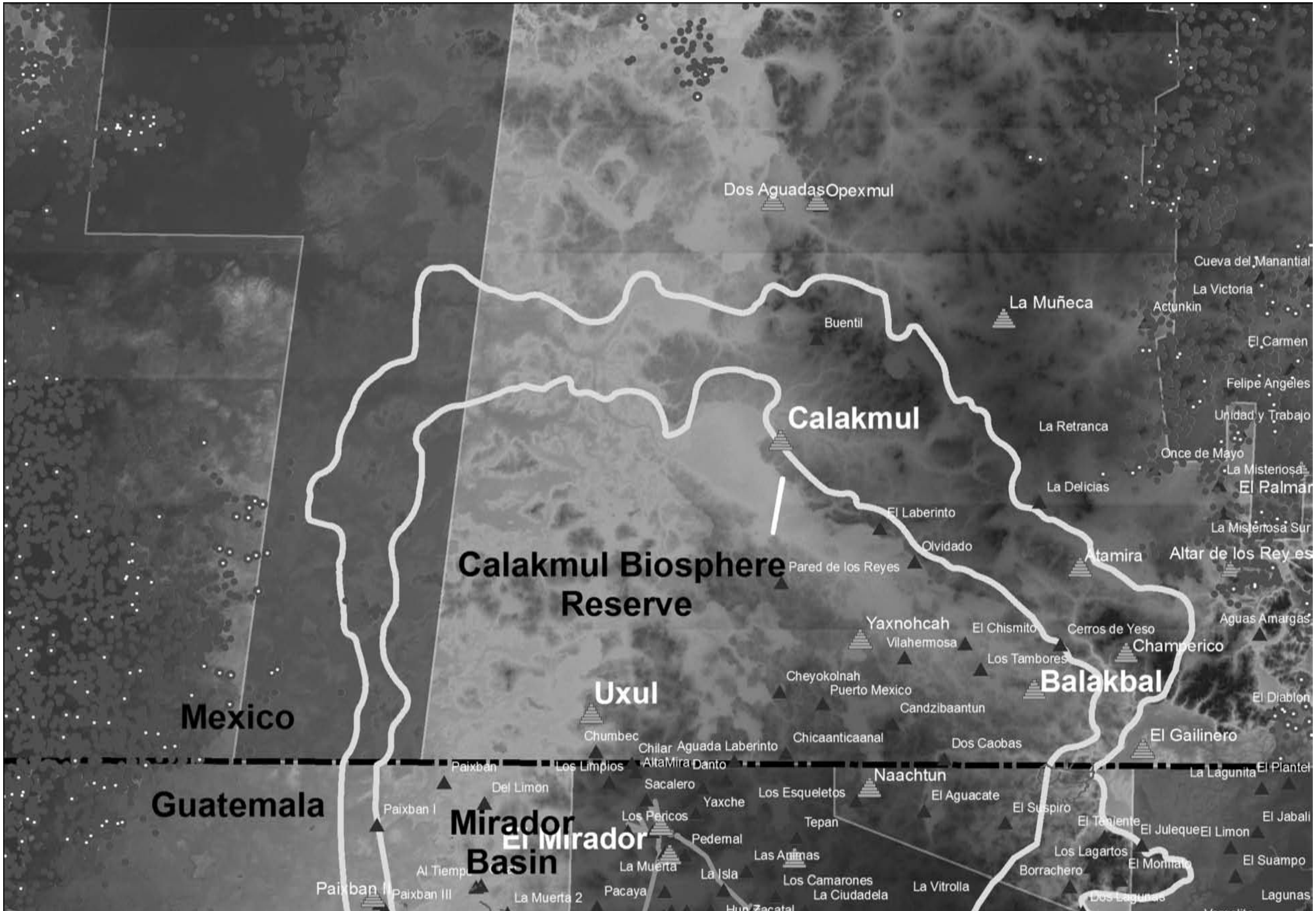
The landscape of the Basin is dominated by the low-lying bajos that are partially the result of the natural elevated circumscription of the area, which creates hydraulic pressure and stagnation of water within the basin (Fig. 8.3). The stunted-tree-covered swamps form approximately 60 percent of the surface area of the Basin, and a comprehensive study of the Basin's flora has detailed the evolutionary format of vegetative types, as well as specific floral communities that may have bearing on settlement patterns (Castañeda and Hansen 2007, 2008, 2016). The soils found in this delimited area are distinct from all other soils in the northern Peten, consisting of clayey types known as Uaxactun, Macanche, and Yaloch soils of poor to medium fertility at present (Simmons et al. 1959; FYDEP 1968; Stevens 1964). Additionally, bajos contain rare and uncommon minerals such as todorokite, identified in magnesium oxide nodules (Dixon et al. 1994).

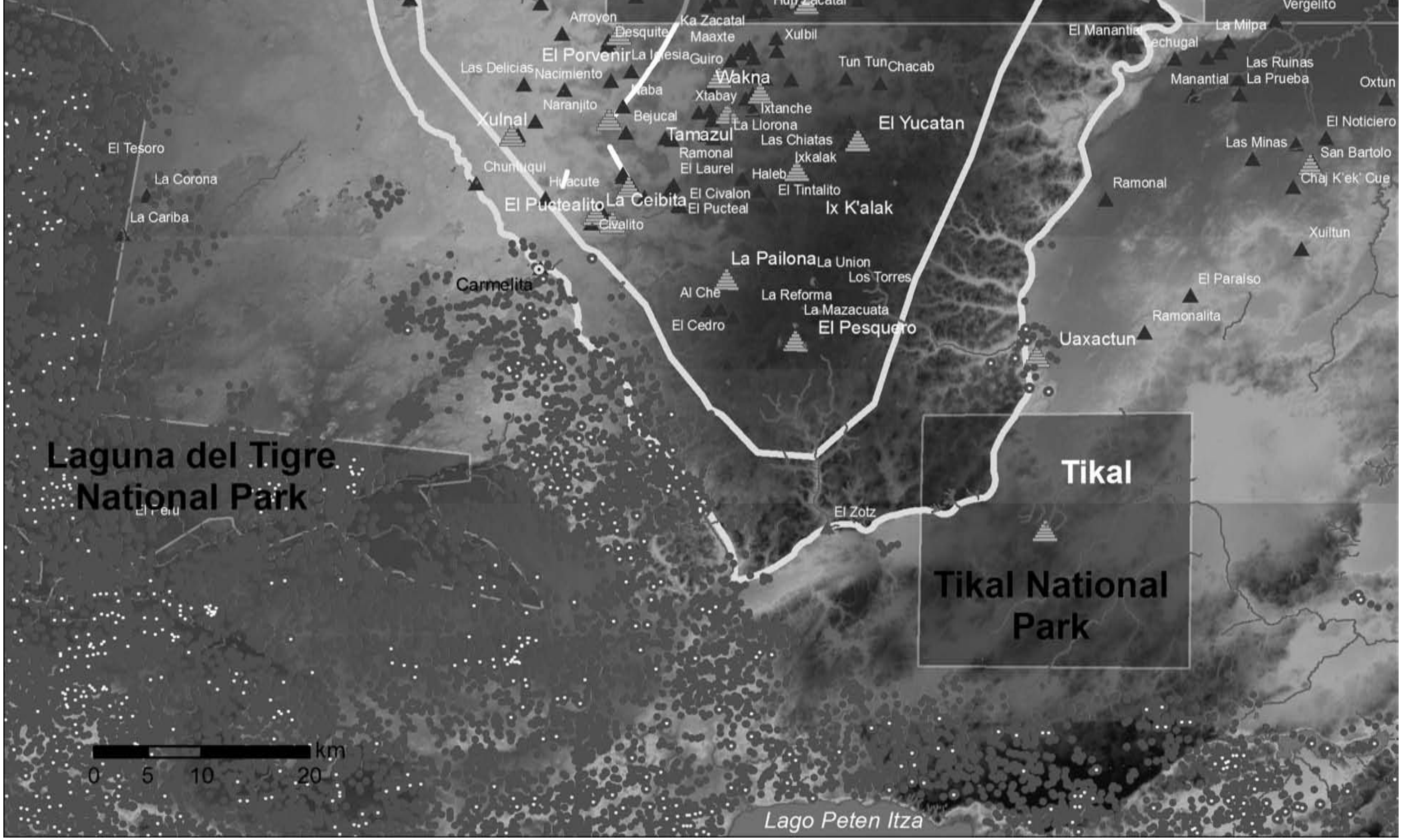
Early explorations of the Mirador Basin, including those of Ian Graham in the 1960s, Heinrich Berlin in the 1950s, and even earlier explorations by the Carnegie Institution in the 1920s and 30s, resulted in the identification of a few of the major sites within its confines, including Calakmul, Uxul, Balakbal, El Mirador, Nakbe, Naachtun, La Muralla, and La Iglesia (Morley 1938; Ruppert and Denison 1943; Berlin 1951; Graham 1967). To date, an additional 51 major and minor sites have been identified, tested, and mapped by the Mirador Basin Project on the Guatemalan side of the Basin (Hansen et al. 2006; Hansen, Howell et al. 2008; Hansen et al. 2009; Hansen and Suyuc-Ley 2002, 2007, 2010; Mejía 2006, 2008; Mejía, Hansen et al. 2010; Mejía et al. 2007; Mejía et al. 2008; Mejia, Aguilar et al. 2010). In addition, the effort to locate major and minor sites by Ivan Sprajc and Nikolai Grube has proven productive in southern Campeche, Mexico (Sprajc 2002, 2003, 2005a, 2005b, 2005c, 2005d; Sprajc and Grube 2008).


GULF OF MEXICO
Archeological sites of Maya culture
National border
Mexican National border
National highway
Corals
Marshland
N
0
100 km
Punta Holchit
Cabo Catoche
Isla Contoy
Isla Mujeres
Isla Cancun
Isla Cerritos
Progreso
Xcambo
Dzilam Gonzales
Tizimin
Culuba
.27 m
El Meco
El Rey
Cancun
Komchen
Motul
Dzibilchaltun
Punta Boxcohuo
Merida
Ake
Izamal
Ek Balam
Punta Nimun
Chochola
Acanceh
Kantunil
Balankanche Caves
Valladolid
Maxcanu
Ikil
Chichen Itza
Chichimila
Xcaret
Yaxuna
Mayapan
Oxkintoc
Ticul
Mani
Coba
Cozumel
Isla de Cozumel
Uxmal
Mulchic
Yucatan
Tancah
Jaina
Xcalumkin
Kabah
Loltun
Tulum
Punta Celarain
Punta Nitun
Hecelchakan
Labna
Muyil
Sayil
Puuc
Xlapak
Campeche
Okop
Senor
Santa Rosa Xtampak
YUCATAN
Quintana
Chenes
Felipe Carrillo Puerto
Punta Morro
Seyba Playa
Chunhuhub
Punta Pajaros
Edzna
Dzibilnocac
129 m
Roo
Tabasqueno
Champoton
Hochob
Villa de Guadalupe
CAMPECHE BAY
212 m
Reforma Agraria
Campeche
MEXICO
Punta Xicalango
Nadzcaan
Laguna de Terminos
Francisco Escarcega
Becan
Morocoy
Dzibanche
Chetumal
Punta Herradura
Banco Chinchorn
Frontera
Ciudad del Carmen
Balamku
Chicanna
Xpujil
Santa Rita
Kohunlich
Hondo
Paraiso
Hormiguero
Rio Bec
Cerros
Comalcalco
Grijalva
Usumacinta
Pulltrouser Swamp
Noh Mul
Corozal District
CARIBBEAN
.365 m
Los Alacranes
Ambergris Caye
Cardenas
Tabasco
Calakmul
Cuello
Orange Walk
Villahermosa
San Pedro
Benito Juarez
Villa El Triunfo
Uxul
New River Lagoon
La Milpa
Balancan
Macuspana
El Mirador
Naachtun
Rio Azul
Lamanai
Altun Ha
Caye Caulker
Caye Chapel
Long Caye
Emiliano Zapata
San Pedro
Teapa
Nakbe
Tortuguero
Orange Walk District
Belize City
Turneffe Islands
Northern Caye
Xultun
Pomona
Belize District
Lighthouse
Palenque
Tenosique de Pino Suarez
Uaxactun
Northern Lagoon
Blackbird Caye
Rio Chancala
Nakum
Belmopan
Agua Azul cascades
El Peru
El Zotz
Tikal
Naranjo
Belize
Southern Lagoon
Half Moon Caye
Tecpatan
2450 m
2470 m
Piedras Negras
Yaxha
BELIZE
REEF
Tajalon
El Cayo
Motul de San Jose
Lago Peten Itza
Xunantunich
1550 m
La Pasadita
Mountain Pine Ridge
Stann Creek
Dangriga (Stann Creek)
Meseta
Ocosingo
Naha
La Mar
Yaxchilan
La Florida
Topoxte

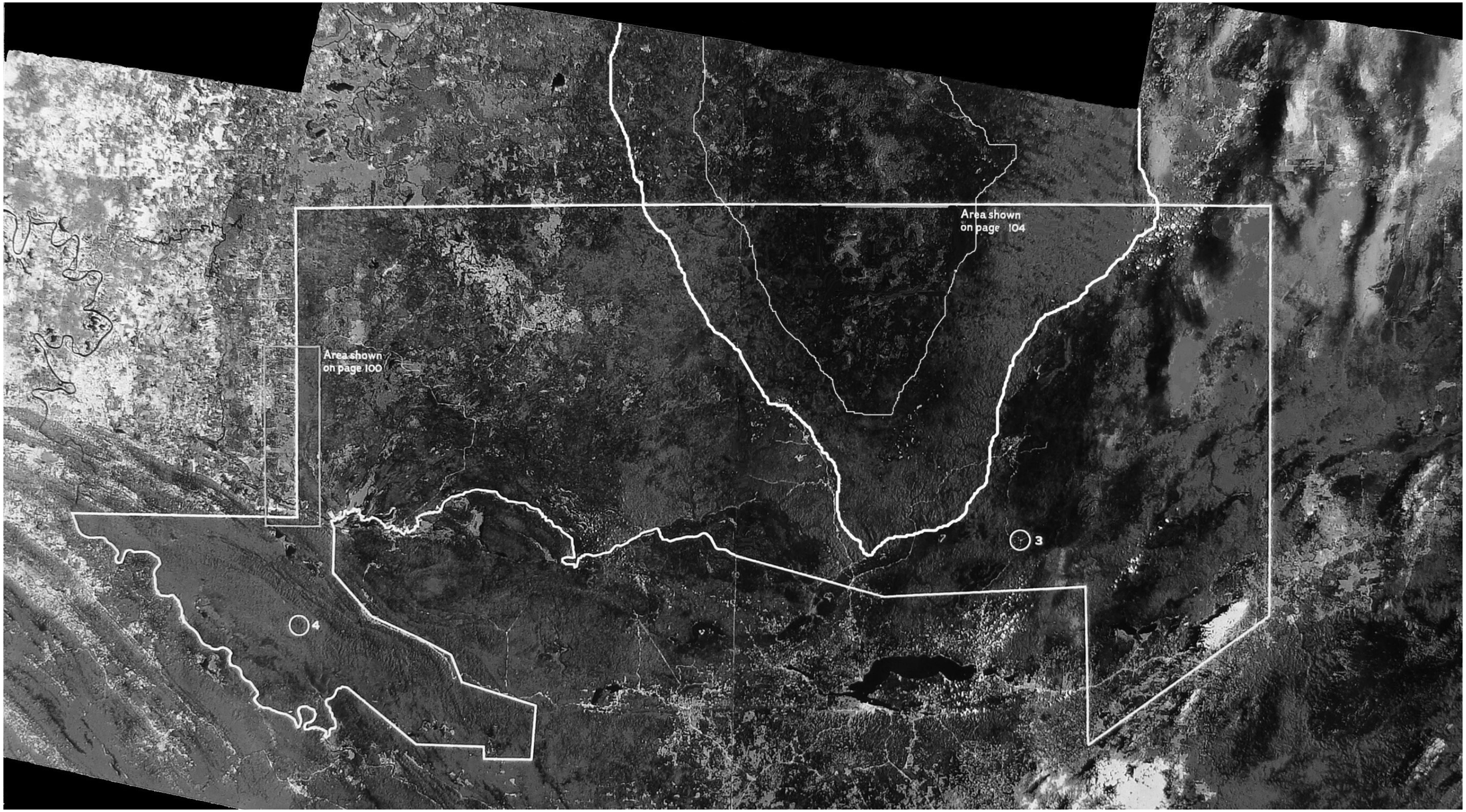


8.1. Map of the Maya area in Mesoamerica showing the general location of the Mirador-Calakmul Basin (modified after Grube 2001:10).


Dos Aguadas
Opexmul
Cueva del Manantial
La Victoria
Actunkin
La Muñeca
Buentil
El Carmen
Felipe Angeles
Unidad y Trabajo
Calakmul
La Retranca
Once de Mayo
La Misteriosa
El Palmar
La Delicias
El Laberinto
La Misteriosa Sur
Olvidado
Atamira
Altar de los Reyes
Calakmul Biosphere Reserve
Pared de los Reyes
Aguas Amargas
Yaxnohcah
El Chismito
Cerros de Yeso
Vilahermosa
Champerico
Los Tambores
Cheyokolnah
Balakbal
Puerto Mexico
El Diablo
Uxul
Candzibaantun
Mexico
Chumbec
Chicaanticaanal
Dos Caobas
El Gallinero
Chilar
Aguada Laberinto
AltaMira
Danto
Paixban
Los Limpios
Naachtun
La Lagunita
El Plantel
Guatemala
Del Limon
Sacalero
Los Esqueletos
El Aguacate
Yaxche
Paixban I
El Suspiro
El Jabali
Mirador
Los Pericos
Tepan
El Teniente
El Juleque
El Limon
El Mirador
Pedernal
Basin
Las Animas
Los Lagartos
El Suampo
Al Tiempo
La Muerta
El Monifato
La Isla
Borrachero
Paixban II
Los Camarones
Paixban III
La Vitrolla
Pacaya
La Ciudadela
Lagunas
La Muerta 2
Dos Lagunas
Hun Zacatal



8.2. Map of the Mirador-Calakmul Basin area showing the concentration and density of known large and early sites within the geographical borders of the karstic ridge that surrounds the system (identified by the two lines) (Map by Josephine Thompson, ©FARES 2011).



8.3. Infrared photo by NASA in 1992 showing the geographical borders of the Mirador-Calakmul basin system. The high upland forest is sharply defined by deforestation areas (upper left) and the *bajo* vegetation of north central Peten and southern Campeche (modified after Stuart 1992: 98–99).

Overall, mapping teams using traditional methods, Total Station instruments, and GPS technology have located an extraordinary concentration of major and minor settlements dating to the Middle and Late Preclassic periods and the Late Classic period within the Basin, representing one of the highest settlement densities yet recorded in the Maya area (Mejía 2012). Recent mapping of 650 square kilometers of the Mirador Basin with high resolution LiDAR has dramatically improved our knowledge of the settlement distribution and communication systems evident in the area. Mapping and explorations accompanied by test pit excavations have increased the chronological and spatial characterization of settlements. The concentration of sites appears to be much greater within the geographical confines of the Basin than in the areas surrounding the Basin. Furthermore, the remains of the Basin's monumental Middle and Late Preclassic cities contain structures that rival the largest in the Western Hemisphere. Yet, in contrast to complex societies throughout the remainder of the ancient world, the precocious political and economic development that occurred in the Mirador Basin coalesced in the region most distant from riverine or coastal areas of any in the Maya lowlands.

The Mirador Basin Project has conducted extensive investigations that provide detailed chronological assessments of sites and associated architecture. The architectural sampling strategies have included large public buildings (i.e., Matheny et al. 1980; Hansen 1984, 1990, 1992a, 1998, 2000; Hansen and Balcarcel 2008; Matheny 1986a, 1986b, 1987; Stutz-Landeen 1986; Howell and Copeland 1989; Velasquez-Fergusson 2011), as well as a stratified sample of Preclassic and Classic residences of varying sizes (Nielsen 1980; Dahlin et al. 1980; Demarest et al. 1984; Balcarcel 1999; Balcarcel and Lopez 2001; Castellanos 2008; Meagher and Schrodt 2009). This work has allowed a more comprehensive perspective on the precocious Preclassic occupation and the accompanying cultural and environmental changes on a regional scale (Hansen 1998; Balcarcel 1999; Balcarcel and Lopez 2001, 2002, 2004; Balcarcel et al. 2004; Mejía 2006, 2008).

ENVIRONMENTAL CONTEXT

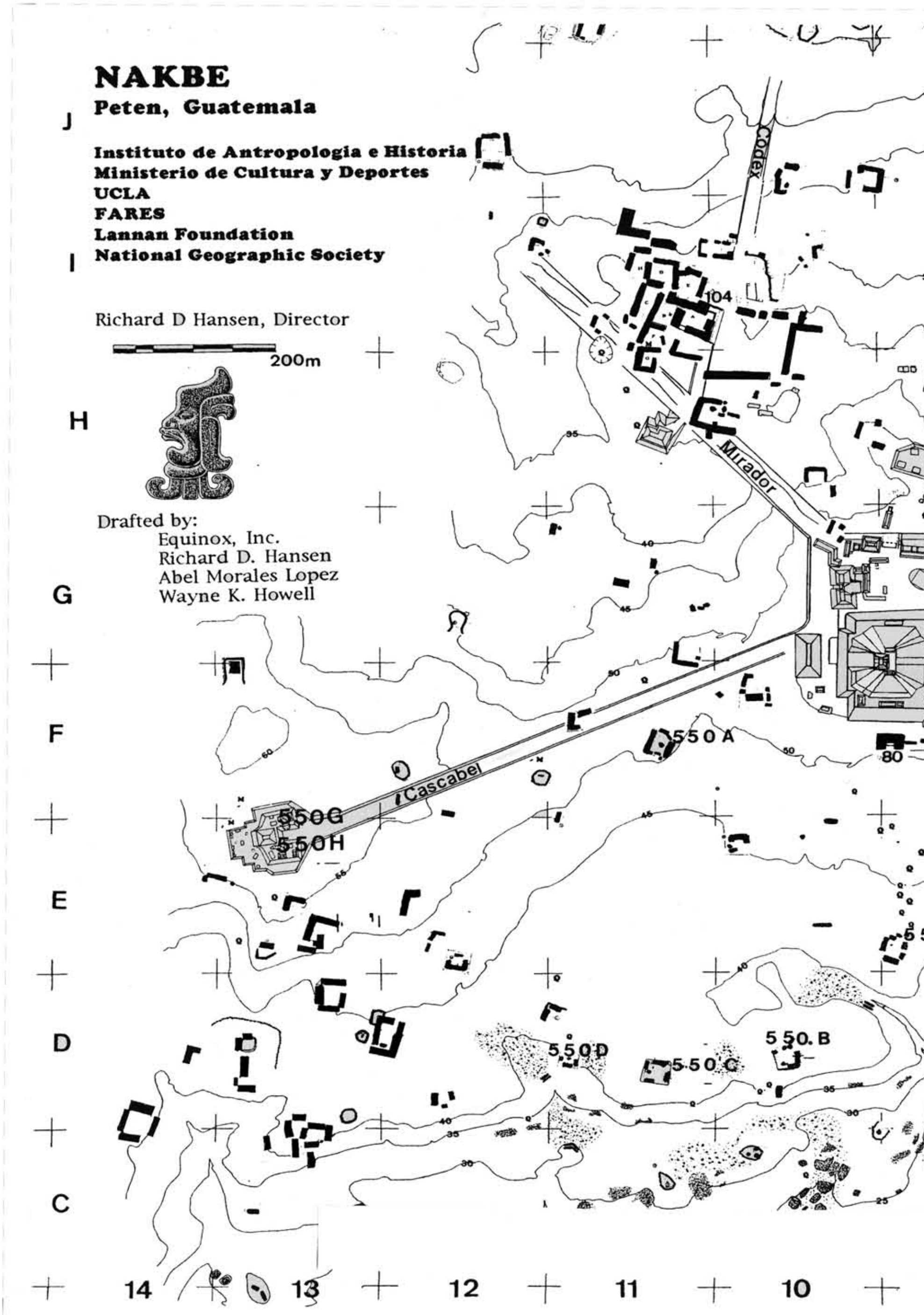
The recovery of archaeological and ecological materials in stratified contexts has allowed for the definition of environmental and cultural events in distinct time periods. For example, studies of pollen sequences (50 samples) and associated AMS carbon dates (12) from more than 17 vertical m of highly stratified cylindrical cores from a series of deep-water lakes and aguadas along the western edge of the Basin have defined occupation spans (settlement onset and abandonment) and cultigens at specific points in time that coincide with the archaeological record (Wahl 2000, 2005; Hansen et al. 2002; Wahl et al. 2005; Wahl et al. 2006; Wahl, Byrne et al. 2007). Since the prevailing winds come from the east, it is likely that pollen of taxa from grasses (*Poaceae*), weeds (*Asteraceae*), forest species (*Melastomataceae-Combretaceae-Urticaceae*), and agricultural products (*Zea*) in these cores are indicators of agricultural and biological occurrences within the Basin to the east. While there are disputes about the capacity of certain pollens to travel with winds, the record is remarkably similar in all three sample locations, suggesting a continuity in the vegetation record. Furthermore, there is direct correlation of the presence of pollen (or lack thereof) to non-carbonate inorganic sediment deposits, indicating increased sedimentation due to deforestation and agricultural activity, as determined by magnetic susceptibility. The stratified pollen samples reflect a consistent record of 8,500 years, and the associated results of sediment chemistry, organic content, and magnetic susceptibility analyses should accurately portray the Basin's cultural and ecological sequences.

The Mirador Basin pollen data indicate that the area had shifted from grassland savannas to moist tropical forest by at least 8,400 cal years BP (Wahl et al. 2006). The first evidence of maize pollen at the lake of Puerto Arturo dates to a median age of 4,600 BP with a 2-sigma age range of 4440–4750 BP (Wahl et al 2006:385; Wahl, Byrne et al. 2007:817).[1] This maize pollen sample is associated with the appearance of *Ambrosia*, a common agricultural weed of the sunflower family, indicating that there were agricultural disturbances in the area by about 2650 BCE. The cultural remains of this early occupation have only recently been identified below the earliest platforms and architecture at Nakbe, but it is now evident that the area was marked by a human presence at this time. The samples also contain a relatively high amount of *Poaceae*, sedges and grasses commonly found in wetland marshes (*civales*). This suggests that the bajos, which were likely lakes during the Pleistocene period, were primarily wetland marshes by the time of Maya occupation. By ca. 3400–3200 cal. years BP (1420–1270 BCE cal.—CAMS #94186), permanent Maya settlement is suggested by a dramatic decrease in forest taxa, an abrupt increase in *Zea mays* pollen, plus *Amaranthaceae* and *Asteraceae-Ambrosia* pollen, common weeds associated with agricultural disturbances (Wahl, Byrne et al. 2007:817). These data have a strong correlation with the chronometric data from archaeological excavations, where a cluster of dates (n=12) for the earliest sedentary occupation at Nakbe range between 1235 and 760 BCE (uncal. C-14 years; calibrated dates push the range to between 1465 BCE and 923 BCE) (Hansen 2005), indicating a sedentary occupation and subsistence by about the same time as incipient occupation was occurring in the Gulf Coast region.

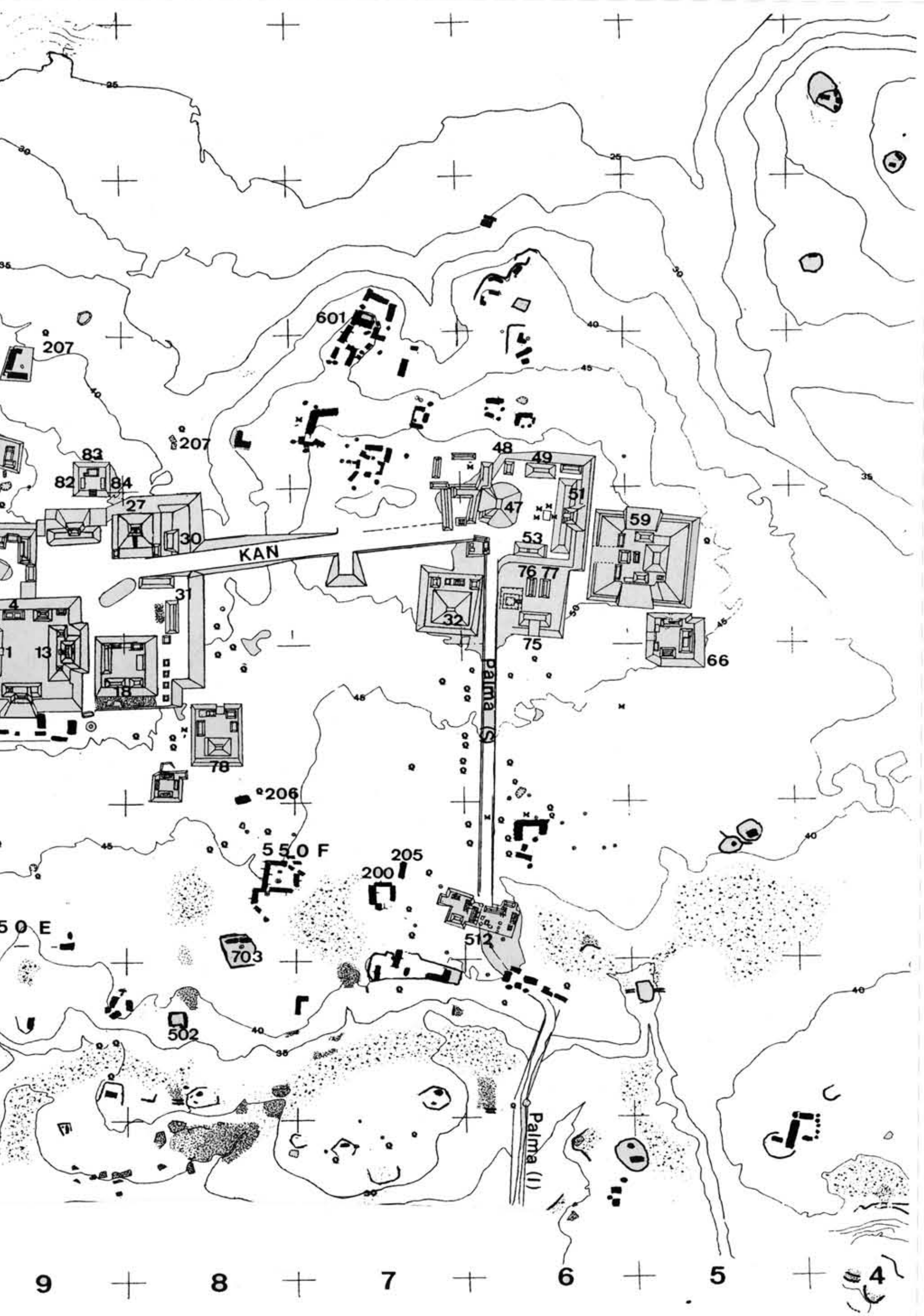
CULTURAL CONTEXT

Thus the beginnings of permanent occupation of the Mirador Basin occurred by ca. 1000 BCE, with a primary concentration of activity at the sites of Nakbe and El Mirador (Hansen 1998, 2001a, 2005; Clark et al. 2000; Clark and Hansen 2001). There is evidence for early Middle Preclassic occupation at the sites of Wakna, Xulnal, and La Florida as well (Fig. 8.2). The initial sedentary occupation at Nakbe corresponds to a period dubbed the "early Ox" phase. Ceramics from this earliest occupation are sparse and consist of red-rimmed unslipped tecomates, incised body sherds, incised rims, and thumbnail-impressed bowls and tecomate forms. Chert blades were also produced at this initial stage. We do not yet have evidence of obsidian importation or other evidence of outside contact in this period, but this may be a sampling problem. It appears that there was a limited occupation at Nakbe (primarily in the East Group, Fig. 8.4) that utilized hard-packed clay floors and postholes carved in bedrock. It is clear that soon thereafter, between 1000 and 800 BCE, Nakbe was a permanent, sedentary village with structures built on low platforms.

Although a hierarchical political and economic structure is difficult to identify at this early juncture without broader horizontal exposure of residences and associated deposits—often buried by later Preclassic architecture—it is clear that nucleated settlement had begun by the early Middle Preclassic period. As noted above, pollen and stable isotope data (Jacob 1994; Hansen et al. 2002) indicate that seasonal swamps around Nakbe and El Mirador were open, grass-covered wetland civales or marshes (Hansen et al. 2002; see also Dunning et al. 2002). Fossil remnants of these systems are still found in the large bajo to the east of Nakbe, the central regions of the Basin, and in the extreme southern area of the Basin near El Pesquero. These marshes would have had a myriad of natural resources, including abun-



8.4. Map of Nakbe, Mirador Basin-RAINPEG Project (after Hansen et al. 2002:285, © FARES 1998).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48
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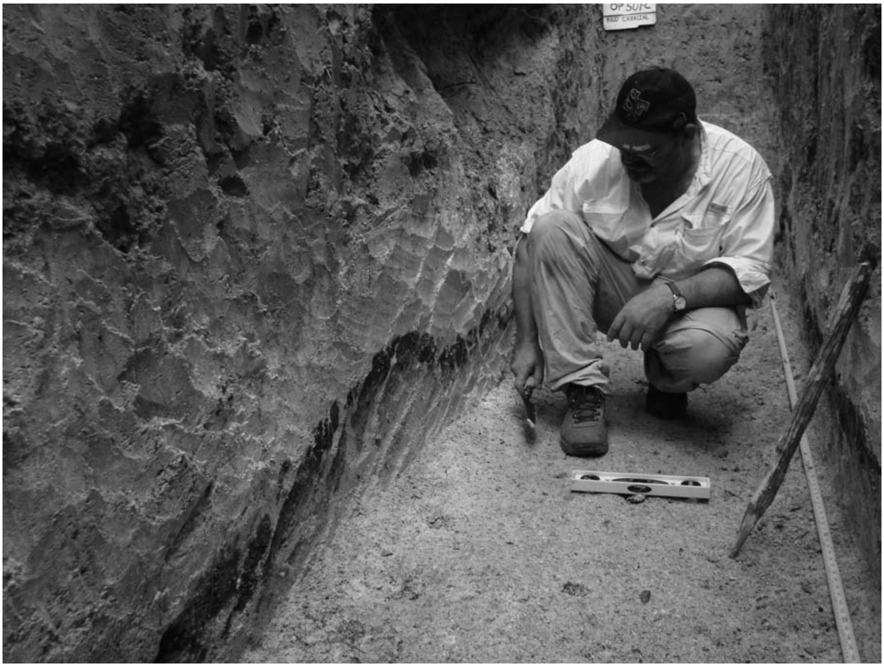
47
59
53
KAN
31
4
1
13
18
76 77
32
75
66
Palma (S)
78
206
550 F
205
200
512
50 E
703
502
Palma (I)
9
8
7
6
5
4

dant birds, turtles, reptiles, shellfish, deer, and peccaries. Even more crucial were deposits of wetland mud in the marshes, rich in nutrients and organic matter. Excavations by John Jacob, Tom Schreiner, Kara Nichols, Enrique Hernandez, and David Wahl in bajos throughout the Mirador Basin have identified this rich layer, now buried by extensive sedimentation (Fig. 8.5). In addition, the natural landscape would have provided farmers areas to cultivate without having to clear large and extensive forest cover. A similar pattern is seen at Tikal, where the majority of early Middle Preclassic (Eb) materials were found near the Bajo de Santa Fe (W. Coe 1965a, 1965b) or, as in the case of the Central Lakes area, near lacustrine resources (Rice 1976b). At both Nakbe and El Mirador (and presumably at other sites in the Basin as well), food production was expanded by transporting rich muck to other areas, thus replicating the fertile system found in the marshes. The perennially wet marshes ultimately became the economic engines of the Mirador



8.5. Dr. Thomas Schreiner investigating what appears to be the buried A-horizon of the original *bajo* surface prior to intense sedimentation (Photo by R.D. Hansen).

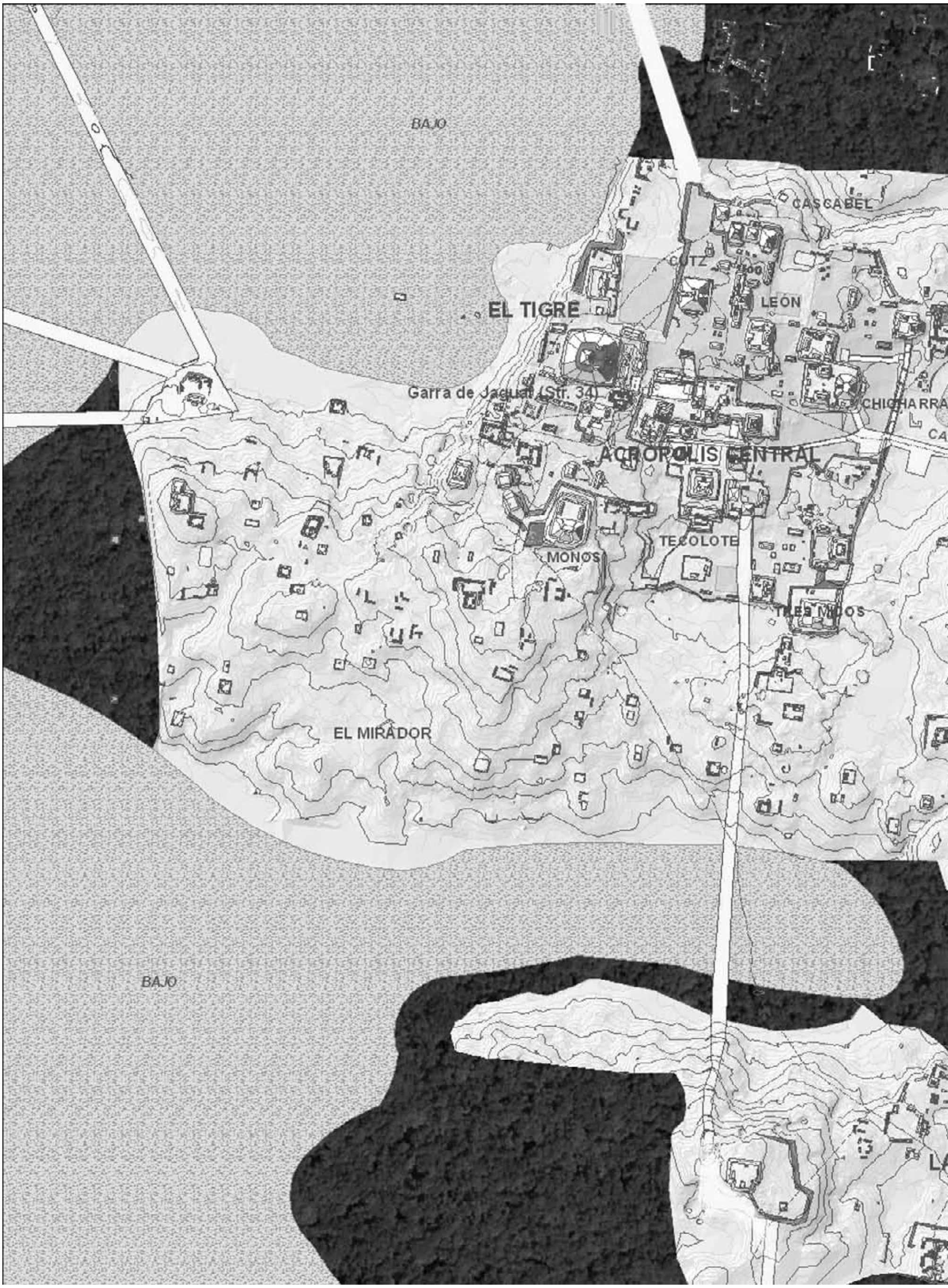
Basin that launched the hierarchical structure evident in succeeding periods of Maya occupation of the region.

THE FOUNDATIONS OF LOWLAND STATES IN THE EARLY MIDDLE PRECLASSIC PERIOD (CA. 1000–600 BCE)

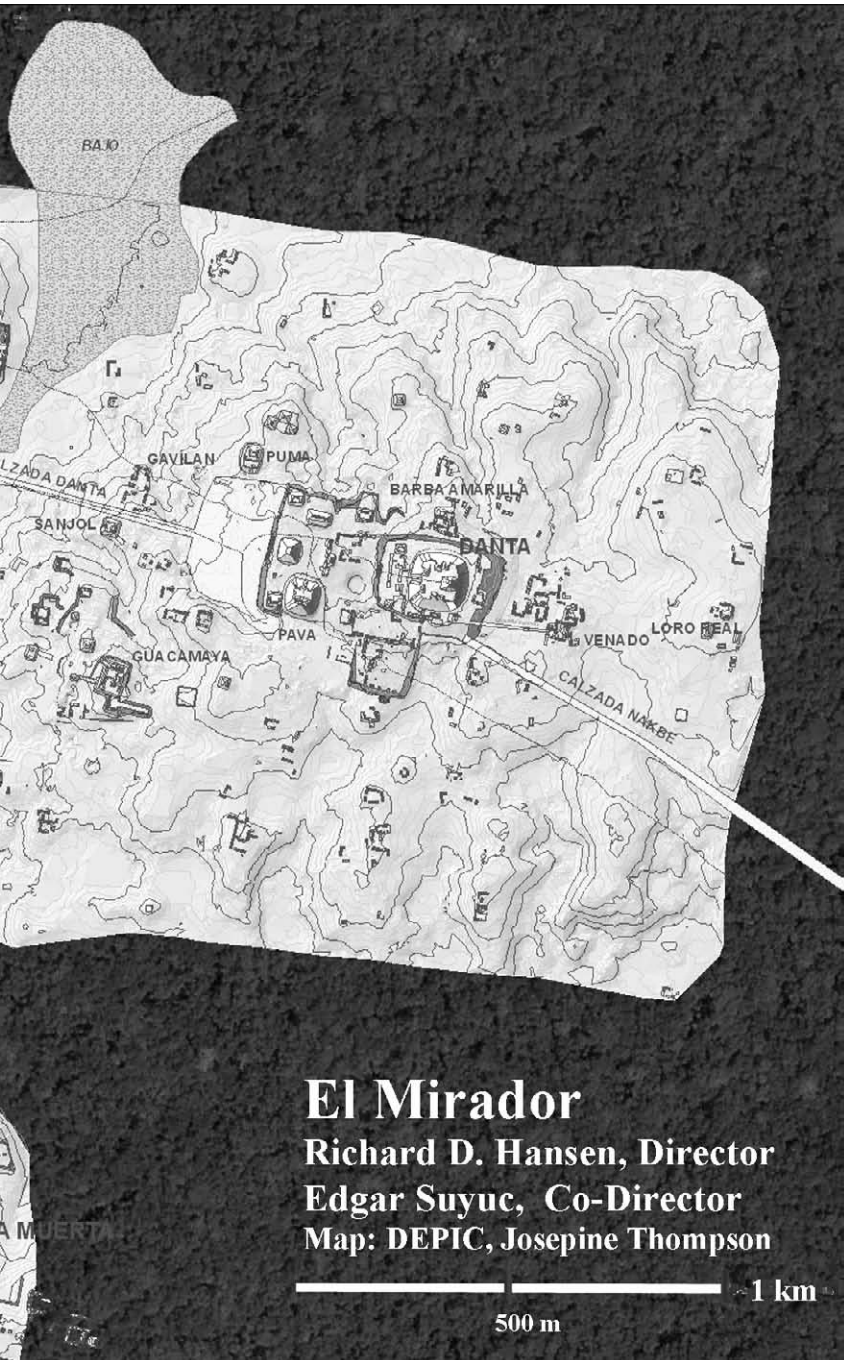
Economic surpluses are fundamental to the growth of complex societies. When surpluses of labor, food, and other resources are associated with a rich ideological system of shared beliefs and ritual behavior, economic capabilities are converted into power. This economic power is reflected in growing populations, social stratification (including elites, religious specialists, artisans, and other manufacturing specialists), mobilization of labor for monumental constructions, development of infrastructure for public benefit (i.e., reservoirs, causeways, terrace systems, canals), feasting and socially cohesive interactions, importation of exotic goods, security, and enforcement of civil and legal controls.

In the Mirador Basin, as throughout Mesoamerica, the underlying economic foundation of Preclassic society was agriculture (Flannery et al. 1967; Siemens and Puleston 1972). As defined above, perennially wet marshes attracted early maize farmers by about 2650 BCE, most likely by exploiting their rich muck soils. By ca. 800 to 600 BCE (the middle Ox phase at Nakbe), structures with vertical stone walls, wattle-and-daub residences, and monumental platforms were being constructed throughout the site. Additionally, elsewhere in the Basin, Middle Preclassic occupations with similar characteristics have been located at Wakna, La Florida, Xulnal, and most recently in the northern sector of El Mirador. Early Middle Preclassic masonry consists of small, roughly shaped stones hewn from limestone quarries and transported to construction areas. Masonry walls were then covered with a rather primitive lime and clay plaster or a chalky, powdered lime plaster, while floors consisted primarily of packed clay, sascab, or thin lime plaster.

One characteristic clearly differentiates early lowland Maya settlements from their neighbors on the Gulf coast. While major lowland Maya sites were organized on an east-west axis, contemporary Olmec centers such as La Venta were laid out along a north-south axis. An east-west causeway was constructed between the two dominant architectural groups of early lowland Maya sites, as if to emphasize their alignment and orientation (Figs. 8.4 and 8.6). Furthermore, ritual structures were laid out to meet specific align-



8.6. Map of the central civic center of El Mirador (Map by Josephine Thompson, © FARES 2010).


BAJO
LZADA DANTA
GAVILAN
PUMA
SANJOL
BARBA AMARILLA
DANTA
PAVA
GUACAMAYA
VENADO
LORO REAL
CALZADA NAKBE
A MUERTA
El Mirador
Richard D. Hansen, Director
Edgar Suyuc, Co-Director
Map: DEPIC, Josepine Thompson
1 km
500 m

ment requirements, indicating that their construction and placement was a planned process, probably associated with important astronomical/solar features (see Sprajc 2005d, 2008; Sprajc et al. 2009).

The scale of construction activities within the Mirador Basin indicates that large labor forces were being marshaled for public construction projects during the Middle Preclassic period. Constructions from this period were located in both the East Group and West Group at Nakbe, and within the Cascabel, Leon, Sacalero, Monos, and Central Acropolis Groups at El Mirador (Fig. 8.6). At both sites, evidence for nucleated settlement exceeded an area of 50 to 100 h.[2]

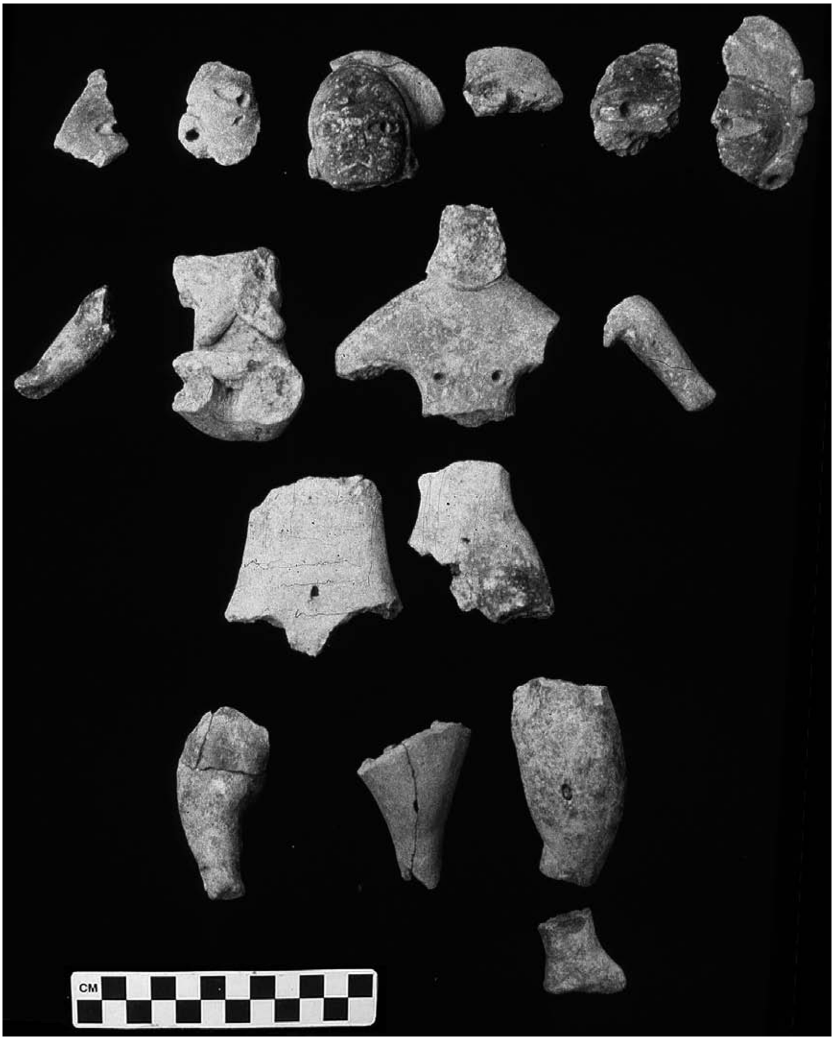
Pottery from this period (800–600 BCE) at Nakbe and El Mirador is clearly within the Middle Preclassic pre-Mamom and Mamom tradition. Diagnostics include figurines, incised bowls, cylinder seals, pre-slip and post-slip incised tecomates, painted stucco-on-slipped monochromes, chamfered bowls with bichrome and dichrome slips, incised and chamfered resist types, along with Palma Daub types with streaky, linear, or blotchy bands of light red, black, and/or orange wash (Fig. 8.7). The dominance of these ceramics and their known distribution within the Basin (and beyond, in some cases) helps identify specific contacts and influences during certain periods. Ceramic studies supervised by Donald Forsyth (Brigham Young University) indicate that early Middle Preclassic ceramics from Nakbe and El Mirador (Early and Middle Ox and Monos Complexes) are typologically more similar to pottery from Uaxactun than from Tikal. They are also more similar to the Xe-Escoba-San Felix Mamom phases in the Pasión and Usumacinta region than with Belize or Yucatan (Forsyth 1989, 1992, 1993a, 1993b:40–41). This suggests that residents had stronger links with sites to the south and southwest of the Basin than to the north, east, or southeast.

Ceramic figurines are found in all levels associated with the Middle Preclassic periods from Nakbe and El Mirador (Fig. 8.8). Figurine forms include solid and hollow masculine bodies, feminine torsos, punctate eyes and nipples, as well as zoomorphic creatures. Ron Bishop (Smithsonian Institution) analyzed the chemical composition of figurines from Middle Preclassic Uaxactun and Nakbe, and identified three Nakbe figurines in the Uaxactun collections; however, no Uaxactun materials have yet been identified in Nakbe samples (Bishop n.d.; Hansen 2001a). Bishop's discovery indicates that Middle Preclassic figurine production was primarily by local artisans for local consumption, rather than being exported from a single

8.7. Middle Preclassic ceramics from Structure 200 in the Cascabel Group at El Mirador (Photo by R.D. Hansen).

source. The overwhelming typological similarities and prevalence of figurines throughout the Middle Preclassic Maya area is a clear indicator of pan-Mesoamerican interaction that allowed the spread of ideas and ideologies that were incorporated at local levels.

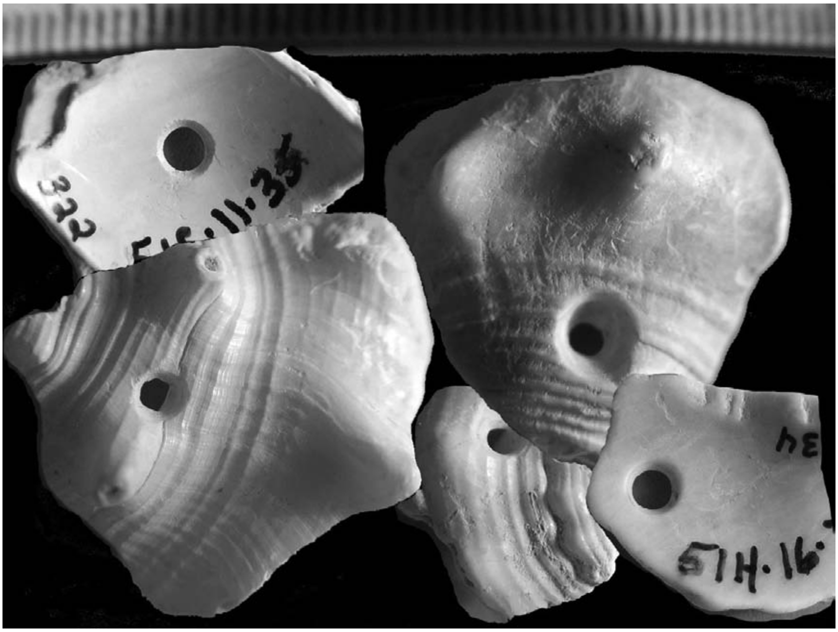
Within the Mirador Basin, there is evidence for leadership and status distinctions during the Middle Preclassic period (800–400 BCE). The existence of leadership positions is suggested by the control of labor and expenditures for the "public good," as suggested by the construction of monumental platforms, pyramidal structures, dams, reservoirs, canals, raised fields, and causeways, as well as the construction of specialized ritual structures of consistent form and standardized format, such as E-Group complexes. The existence of status distinctions comes from evidence of variations in residence size and architectural sophistication, and the introduction of symbol systems that distinguished groups and differentiated elites from the masses.



8.8. The range of Middle Preclassic figurine fragments from primary deposits at Nakbe (Photo by R.D. Hansen).

Differential status also can be seen in the importation and distribution of exotic goods from the Maya highlands (obsidian, jade, basalt, granite) and coasts (shells, coral, parrot fish), stone monuments, and other indicators of rank and status such as jade- or hematite-inlaid human incisors (Mata Amado and Hansen 1992) and cranial deformation.

By the early Middle Preclassic period, shells were being imported into the Mirador Basin and made into ornaments, including anthropomorphic and zoomorphic forms, as well as circular disks and earspools. Other imports included sea urchins and freshwater clams (Feldman 2001). *Strombus* shells imported from the Caribbean are especially prevalent at Nakbe and other Middle Preclassic lowland sites during this time (Fig. 8.9). The majority of these shells were drilled with a single perforation, leaving the spines and natural protuberances intact. The shells are exclusive to the ca. 1000–600 BCE era, and have not been found in any deposits of subsequent periods throughout the Mirador Basin. Similar shells have been recovered from early Middle Preclassic contexts at Tikal (Laporte and Valdes 1993), Uaxactun (Ricketson and Ricketson 1937), and in Belize at Colha (Dreiss 1994), Blackman Eddy (Garber et al. 2002), Pacbitun (Hohmann and Powis 1996), and Cahal Pech (Awe 1992; Lee and Awe 1995; Cheetham 1999, 2005). At Cahal Pech and Pacbitun, shells in various stages of manufacture were



8.9. Drilled and perforated *Strombus* shells from early Middle Preclassic deposits at Nakbe. These shells have never been recovered from any contexts of the subsequent periods of time in the Mirador Basin, and may have been a form of early currency (Photo by J. Woods).

found in association with awls, drills, and cutting implements, suggesting a workshop industry prior to export to sites of the interior lowlands (Awe 1992; Lee and Awe 1995; Hohman and Powis 1996). Despite their prevalence, they have yet to be identified in Middle Preclassic burial contexts or as jewelry. Retention of the spines suggests that they were not used as body ornaments. The unique presence of *Strombus* shells in early Middle Preclassic ritual and elite deposits indicates an important status or economic indicator or, perhaps, a currency like the Kula rings of the south Pacific where possession and heirloom status of shells was often as important as ornamentation (Malinowski 1961:88–89).

While sharing some imported exotic status markers like jade with other areas of Mesoamerica, there are several items that are unique to specific regions during the Middle Preclassic. For example, *Strombus* shell has not been found in the Gulf coast lowlands at La Venta or San Lorenzo. By the same token, hematite mirrors and ilmenite beads, so common at Olmec centers, are not evident in the Mirador Basin or elsewhere in the Middle Preclassic Maya lowlands. Such disparities suggest that the lowland Maya had developed an autochthonous value and symbol system independent from their Mesoamerican neighbors.

There are other examples that suggest the primacy of localized developmental trajectories in the Maya lowlands, such as obsidian trade and specialized lithic production systems. During the Middle Preclassic, obsidian was imported into the Mirador Basin primarily from San Martin Jilotepeque in the Maya highlands (Kunselman 2000). In contrast, the Olmec centers of San Lorenzo and La Venta relied on a different trade network for their supply, importing obsidian from Orizaba (Guadalupe Victoria), El Chayal, and the Basin of Mexico (Coe and Diehl 1980:391; Cyphers 1996:66). The lowland Maya shifted to depending heavily on the El Chayal obsidian source from San Martin Jilotepeque at about 300 BCE (Nelson 1985:645; Nelson and Howard 1986; Fowler et al. 1989), after the Olmec political and economic system disintegrated.

The archaeological evidence suggests that in the early phases of settlement, obsidian tool production was orchestrated within the Basin rather than imported as finished products.[3] This was a likely strategy by local elites to support local craft specialists and to control skill crafting, production, and distribution of exotic commodities, behavior common to incipient hierarchies throughout the world (Helms 1993:34; see also Fraser and Cole

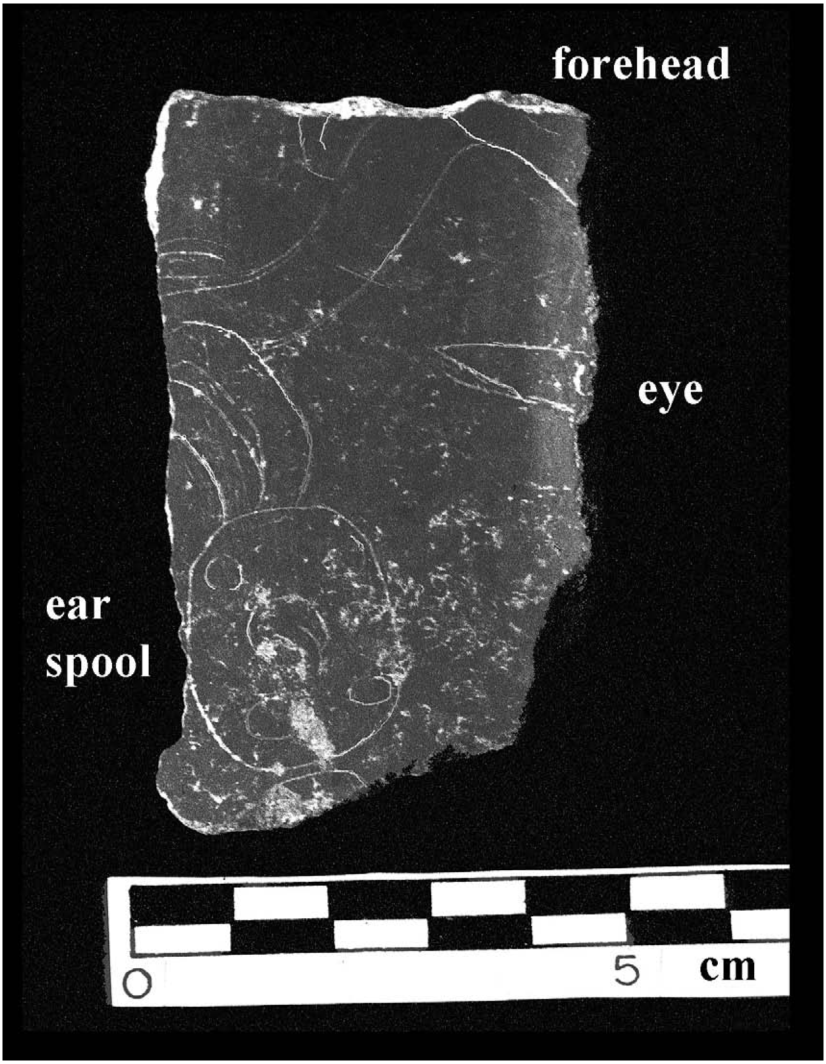
1972). The importation of exotic commodities via trade networks served to demonstrate variations in economic status, establish political legitimacy, allow authoritative benevolence, create demand for skilled crafting, and display long-distance managerial skills (see Helms 1993).

Specialist production of local chert tools was also evident at the small site of La Florida, located in the Mirador Basin south of Tintal. This site had dense deposits of chert debitage, dating to the Middle Preclassic, Late Preclassic, and Late Classic periods, due to a rich source of eroded chert nodules from an adjacent arroyo (Hansen and Suyuc-Ley 2002). Evidence of Middle Preclassic occupation at La Florida was found in residence constructions, chultuns, small platforms, and a standing weathered stela, suggesting that the site was of some importance at this early time.

The appearance of long-distance trade items used for ritual or economic purposes does not always imply a more complex cultural trajectory, since such trade may precede social stratification (Helms 1993:213). But exotic commodities highlight an important contrast between the ordinary masses and those responsible for the political and economic organization of merchant relations, varied ethnic groups, and skilled artisan development and distribution systems (Helms 1993:14; Clark and Blake 1994). Such administrative responsibility demonstrated authority and the implementation and maintenance of prestige that justified and stoked the formation of rank and status differences (Helms 1993:68).

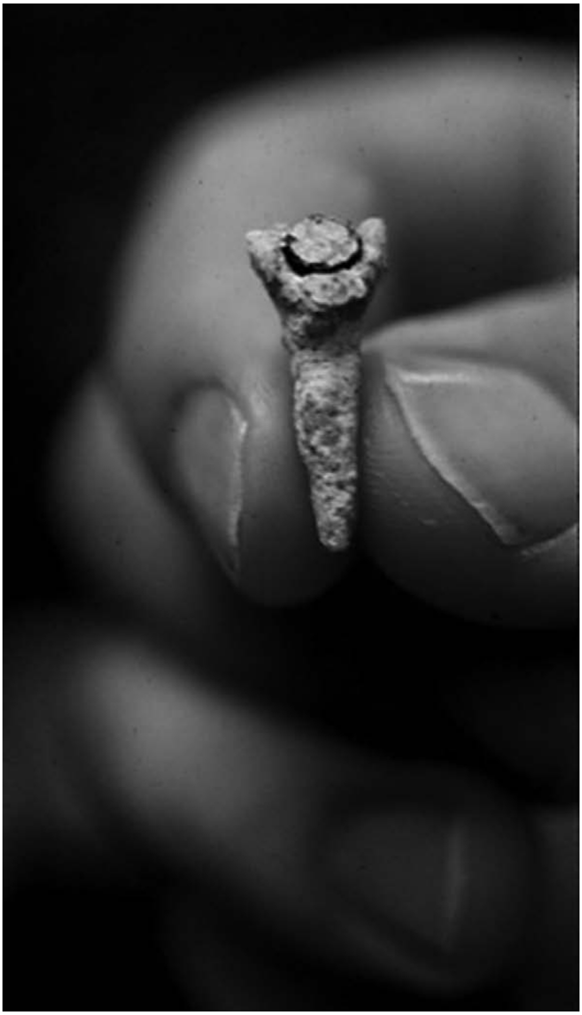
Middle Preclassic long-distance trade and socio-economic contact is consistent with interaction sphere (Freidel 1981) and peer-polity interaction models (Renfrew and Cherry 1986; Renfrew 1986). By this time, if not earlier, there are clear indicators of status and personal wealth in the Maya lowlands. Physical characteristics and personal status indicators such as woven mat symbols, skull deformation (forehead flattening; Fig. 8.10), and dental inlays (hematite disks; Fig. 8.11) appear during this time (Mata Amado and Hansen 1992). Figurines depicting the three-pronged "Jester God" were recovered from early Middle Preclassic deposits at Nakbe (Hansen 2001a:55), suggesting that the iconography of rulership and Maize God symbolism, evident in contemporaneous Olmec societies, was also present in lowland Maya society.

Ritual paraphernalia was an important legitimization strategy. Large slab altars were placed on centerlines of important structures, as with Altar 4 and Stela 1 at Nakbe (Fig. 8.12). A small blue-green jade bead had



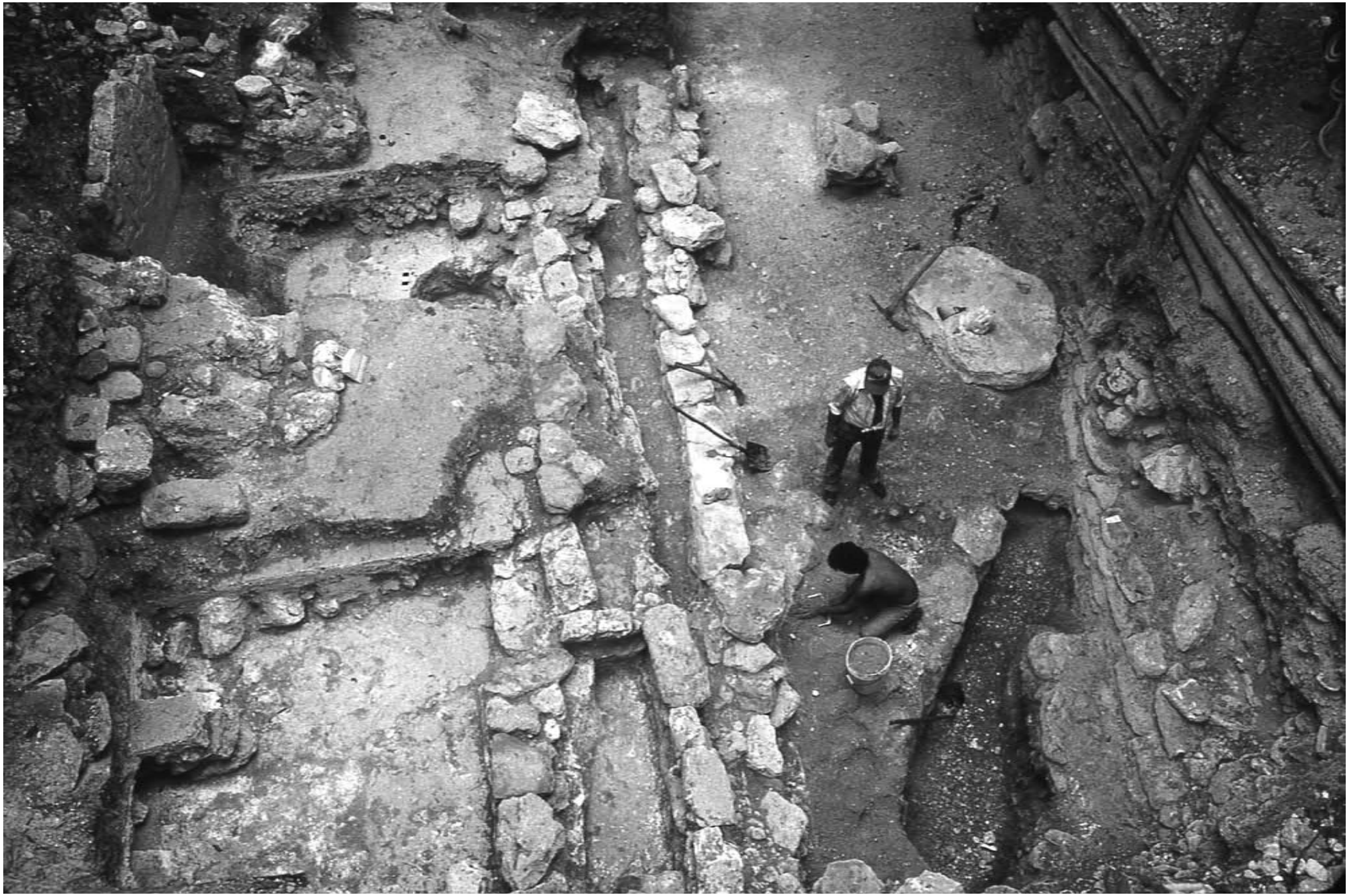
8.10. An incised Middle Preclassic Juventud Red sherd from Structure 59 at Nakbe, showing the eye, portions of the ear spool, and the deformed forehead of a person, indicating early status differentiation by cranial deformation (Photo by R.D. Hansen).

been placed on Altar 4, a pan-Mesoamerican practice of associating monuments with offerings, as noted at other Middle Preclassic Maya sites such as Cuello, Belize (Hammond 1977a, 1985a). The woven mat or *pop* motif,

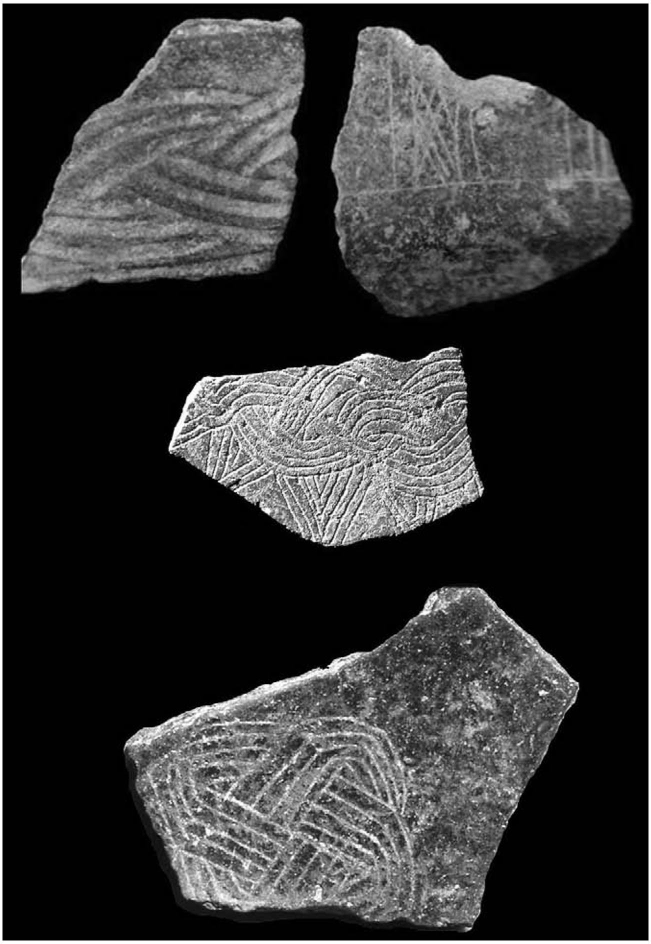


8.11. A Middle Preclassic human incisor from Op. 51 C at Nakbe (ca. 800 BCE) with an inlaid hematite disk in the tooth (Photo by R.D. Hansen).

associated with royalty and deity figures in later times, is found incised on Middle Preclassic ceramics (Fig. 8.13). The presence of monuments, exotic imported offerings, and the woven mat motif all indicate that the symbols of the institution of kingship and hierarchical administrative control coalesced in the Mirador Basin during the earlier phases of the Middle Preclassic period (Hansen 2012a).



8.12. *facing page* Area of Op. 51 at Nakbe at the western base of Structure 51, showing the Middle Preclassic Altar 4 in the center line axis of the plaza, which had been sealed under a Middle Preclassic floor adjacent to an earlier phase of the elongated platform on the east side of the plaza. A Late Classic burial platform was erected on the left side, and a large standing stela, Stela 1, had been extracted from its earlier position in the platform (Photo by C.D. Bieber).



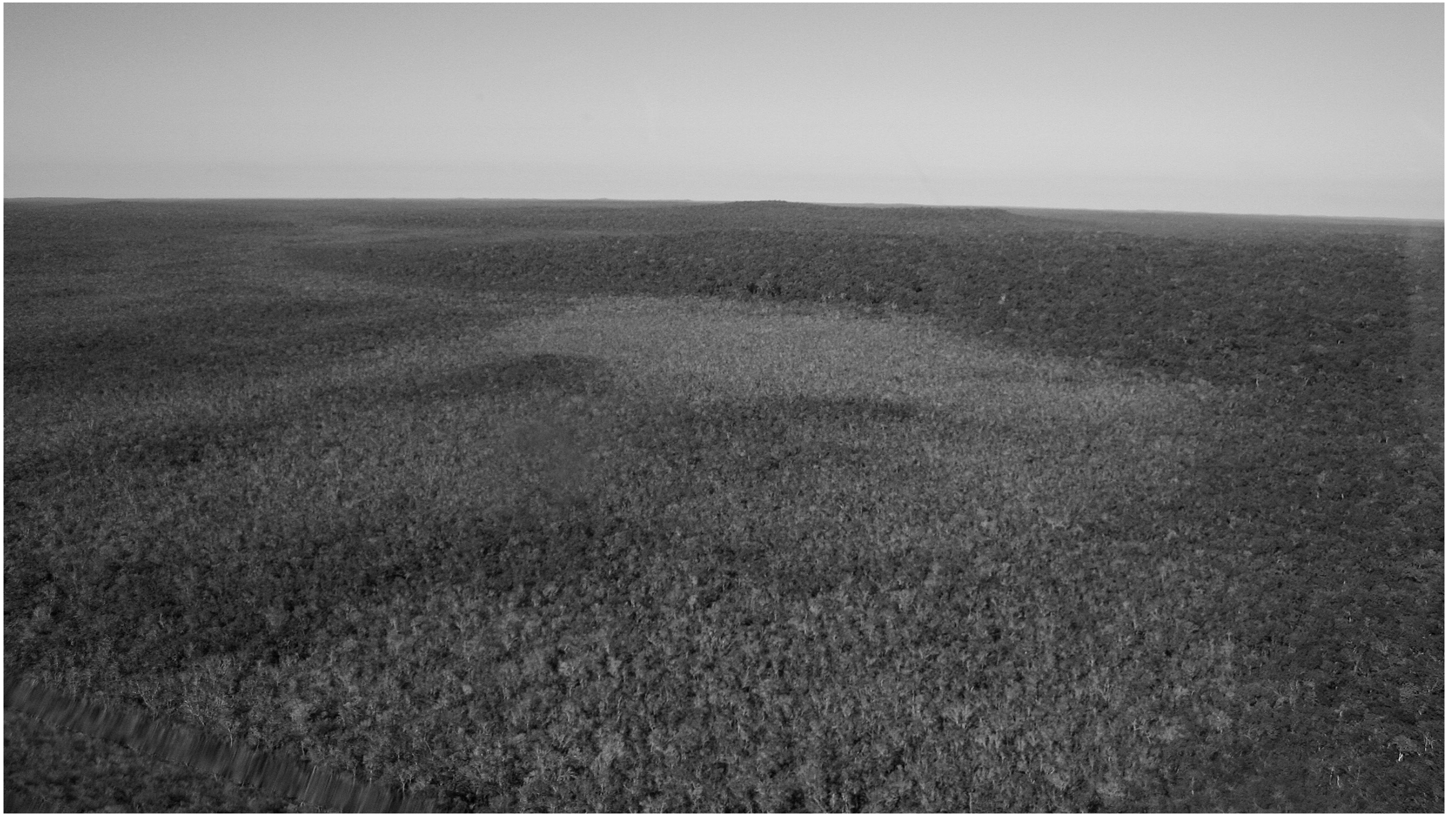
8.13. *above* Woven mat motifs (*pop* elements), symbols of Maya regal authority, found incised on Middle Preclassic ceramics from Nakbe (Photo by R.D. Hansen).

FORMATION OF LOWLAND STATES IN THE LATE MIDDLE PRECLASSIC PERIOD (CA. 600–400 BCE)

By the late Ox and Monos phases at Nakbe and El Mirador (ca. 600–400 BCE), monumental pyramidal structures up to 24 m high and faced with masonry were constructed at Nakbe, Xulnal, El Pesquero (see below), and El Mirador on massive platforms measuring 3 to 8 m high. Excavations suggest that similar large constructions appeared at Wakna, Tintal, and to a lesser height in La Florida. At El Mirador, several areas were known to have monumental architecture by the Middle Preclassic period, including the Cascabel area, Leon Group, the Sacalero Group, the Sacalero Causeway, the Central Acropolis, and the Monos pyramid area.[4] The first of three major phases of a ball court was built at Nakbe during this period, indicating institutionalized involvement in a pan-Mesoamerican cultural tradition (Velásquez 1999; Hansen 1998, 2001a).

Agricultural Intensification

By late Middle Preclassic times, if not earlier, vast quantities of bajo soils were transported throughout the sites of Nakbe and El Mirador (and possibly Xulnal and El Pesquero) and deposited in terrace constructions, containment dams, and specialized fields (Martínez et al. 1999; Bozarth 2000; Hansen et al. 2000; Bozarth and Hansen 2001; Hansen et al. 2002; Hansen 2012b:257, fig. 11.14). Terrace constructions bordered by stone walls and filled with imported muck formed gardens next to elite residence compounds. One of these, Nakbe Group 18, is likely a Middle Preclassic royal palace compound (Martínez and Hansen 1993; Clark and Hansen 2001) (see Fig. 8.4). The large platform of Group 18 had a 20 m x 120 m terrace on its southern flank that supported the cultivation of maize, squash, gourds, and palms (Bozarth 2000; Bozarth and Hansen 2001; Hansen et al. 2002). Additional imported mud fields have been identified throughout the site centers of Nakbe and El Mirador (Hansen et al. 2002:289). Excavations of unusual linear formations in the Bajo Carrizal, located to the southwest and west of El Mirador, by the Mirador Basin Project suggest that these features were most likely Preclassic raised agricultural fields on a massive scale (Schreiner et al. 2008). Pending additional investigations in these bajos, it is likely that a chinampa-style system was in effect in the Middle and Late Preclassic periods, suggested by the extended parallel rows of differential vegetation in the bajos (Fig. 8.14).



8.14. Aerial view of the series of elongated, parallel, elevated features in the Bajo Carrizal, found to the southwest of El Mirador. The features appear to have been an ancient chinampa-like system (Photo by E. Hernandez).

The discovery of fields of imported soil, check dams, and artificial terrace constructions suggests that lowland Maya society in the Mirador Basin was supported by intensive agriculture by at least the late Middle Preclassic period if not earlier. The production capabilities of these agricultural features fueled an unprecedented population increase for the Maya lowlands, and furnished the economic surpluses to propel the "aggrandizing" elite into more powerful positions within an even more complex sociopolitical organization that took shape during the succeeding Late Preclassic period.

Residential and Public Architecture

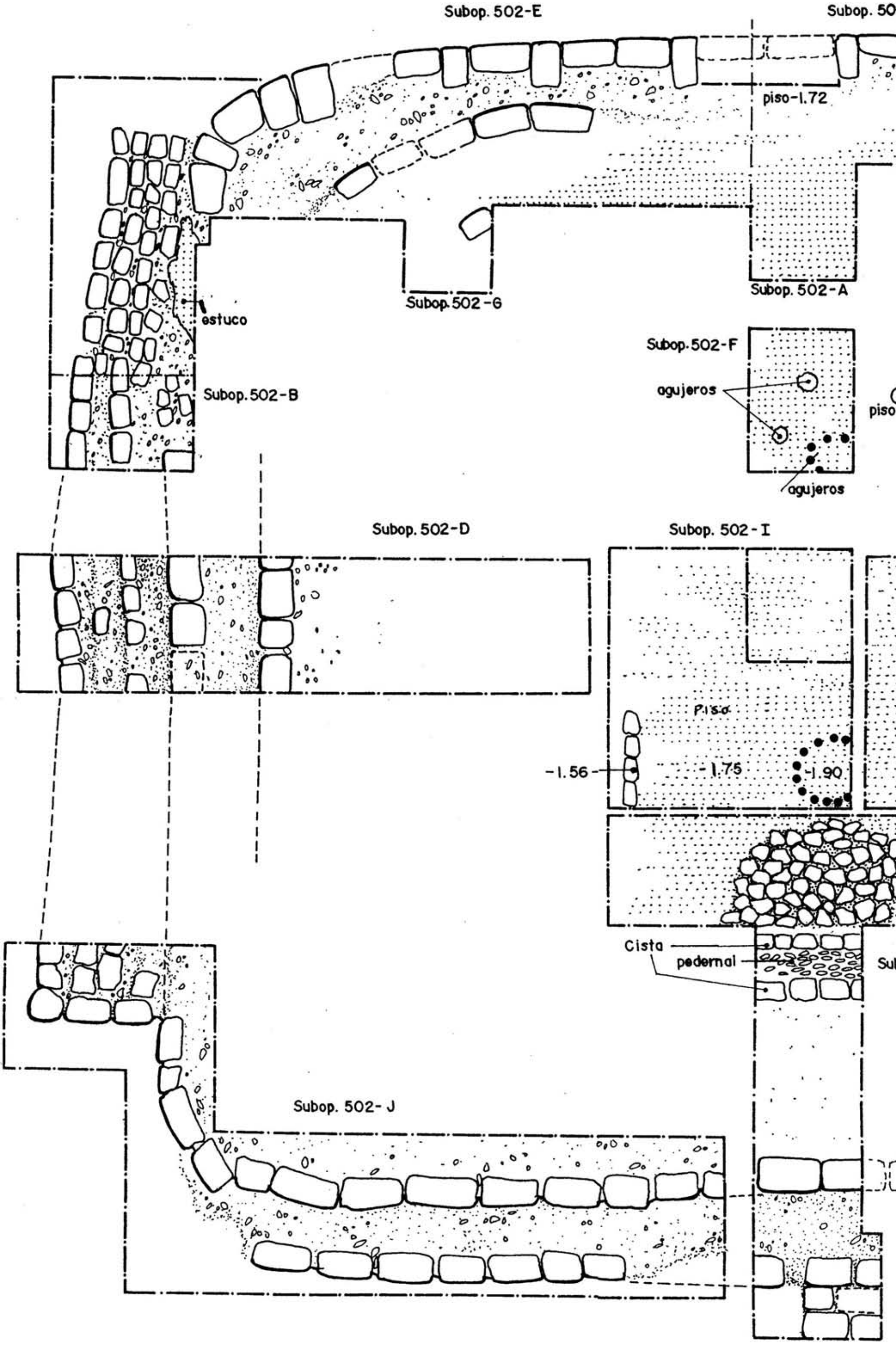
Excavations in residential areas and civic centers provide a glimpse of the socioeconomic gradations within Nakbe, El Mirador, and El Pesquero societies during the late Middle Preclassic period. Excavations by Beatriz Balcarcel at Nakbe revealed a late Middle Preclassic elite residence platform near a series of imported-mud agricultural terraces (Operation 502). The platform measured 20 x 17 m and was faced by large cut-stone blocks placed end to end in a pattern consistent with this period (see below) (Fig. 8.15). The west face had a single broad stairway that led towards the terraces and fields. The platform had a stucco floor and supported the remains of masonry residential structures on its east side. Postholes indicate several additional perishable residences on the same platform (Balcarcel 1999). The elite character of this Middle Preclassic platform, with its large stone blocks, thick lime plaster floor, and broad stairway, differs markedly from the remains of simple huts or even the single-coursed stone platforms found in other residential areas in the vicinity, and demonstrates the economic and social variations reflected by contemporaneous structures within Nakbe.

Group 18, the largest of the elite residential complexes at Nakbe, revealed a likely royal palace dating to the late Middle Preclassic period (Martínez and Hansen 1993; Clark and Hansen 2001:16–18). Group 18 was located on the primary platform of the West Group, immediately east of the platform that supports Structure 1, the largest structure at the site (Fig. 8.4). An inset stairway is located on the northern face of the Group 18 platform, oriented towards the more public gathering area near the Kan Causeway. The platform measures 80 m^2 with a height of up to 4 m. Several structures line its perimeter, providing an additional 2 to 3 m in height.

Water collection was of prime importance at Nakbe, El Mirador, Wakna, Tintal, and other large Mirador Basin sites. Entire plazas were designed to channel and direct water flows into managed reservoirs. This can be observed with Structure 32 of the Nakbe East Group, which was designed to collect and channel water into a specially constructed, rectangular reservoir located adjacent to the ball court to the east of the building. The entire plaza complex to the west of the Leon Group at El Mirador functioned to channel water toward the large reservoirs to the west at the base of the 30 m escarpment.

So-called E-Groups are among the most significant architectural complexes found in the Preclassic Maya lowlands (Hansen 1992a, 1992b, 1992c, 1998:63ff; Chase and Chase 1995; Aveni et al. 2003). This architectural form may represent the mythological *wak chan* of Maya cosmology, the residence of First Father and the site of the planting of the three primordial stones of creation (Hansen 1992a, 1998:68ff; 2000). The architectural form consists of an elongated north-south platform on the east side of a plaza, with a dominant pyramidal structure on the west that frequently, but not always, possessed quadripartite stairways. The final form of Middle Preclassic E-Group constructions at Xulnal and Nakbe correlates with contemporaneous buildings at Tikal (Str. 5C-54 "Lost World") and Uaxactun (Group D; Acevedo, pers. comm. 1996; Laporte and Valdés 1993; Laporte and Fialko 1993a, 1995), as well as those in more distant highland Chiapas, such as Chiapa de Corzo, Mirador-Chiapas, and La Libertad (Mason 1960a; Agrinier 1970; Clark 1988:8). The data from the lowlands suggest a long and consistent evolutionary development, with the best-documented sequence observed in Tikal's Lost World Pyramid (5C-54) by Juan Pedro Laporte and Vilma Fialko (Laporte and Fialko 1993a, 1995:47–51).

The earliest E-Group in the Tikal sequence (Structure 5C-54-1) dates to the Eb ceramic phase, or ca. 800 BCE (Laporte and Fialko 1993a:16–20; Cheetham et al. 2003). Two carbon dates from the Nakbe E Group (Structure 51 Sub 1) indicate it is probably slightly later than this Tikal example, but likely as early as 780 BCE (Hansen 2005:58). A similarly early structure was identified in the E-Group at the site of Cival by Estrada-Belli (2003, 2006; see Estrada-Belli, this volume). The Tikal, Cival, and Nakbe examples are earlier than the E Group at La Venta (Structures D-1 and D-8), which dates to about 500–400 BCE (Rebecca González Lauck, pers. comm. 1998; González Lauck 1996:75). Thus, it seems likely that the E-Group complex is a lowland Maya innovation that was subsequently adopted on the Gulf coast, Pacific coast, and in the Maya highlands.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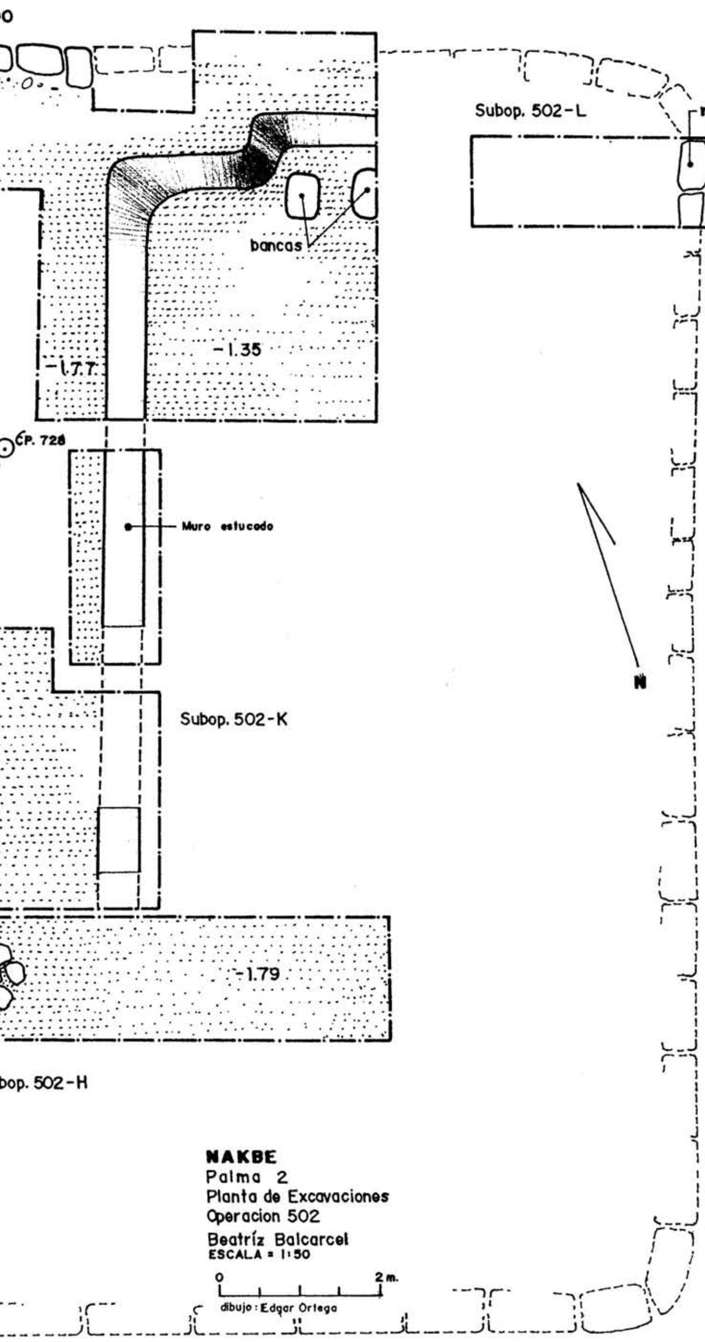
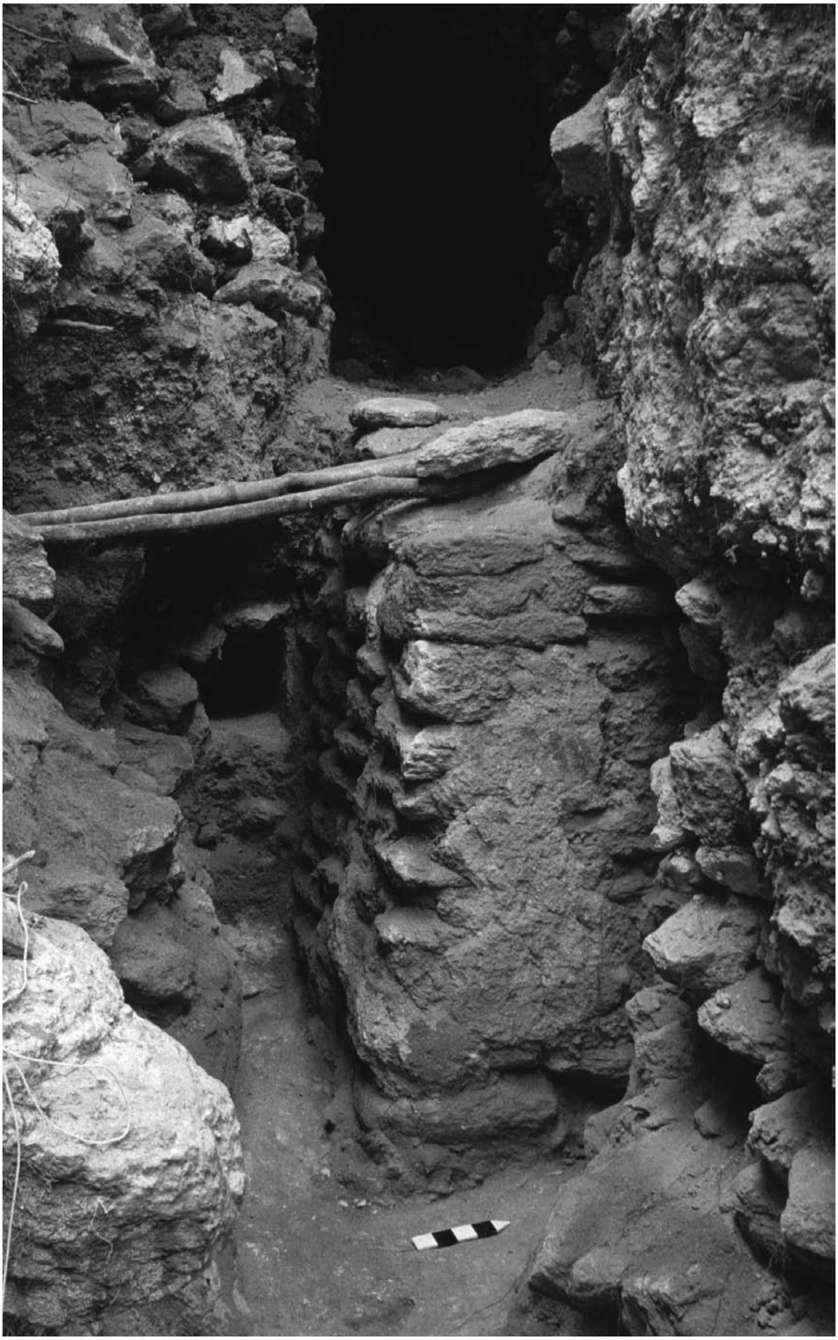


8.15. Top) Nakbe Op. 502 revealed a late Middle Preclassic and Late Preclassic residential platform located on the southern side of the city center, showing considerable size, elegance, and architectural sophistication in comparison to contemporaneous structures in the same general area. Bottom) The North wall of the residential platform, showing large blocks in the wall (Drawing by B. Balcarcel).

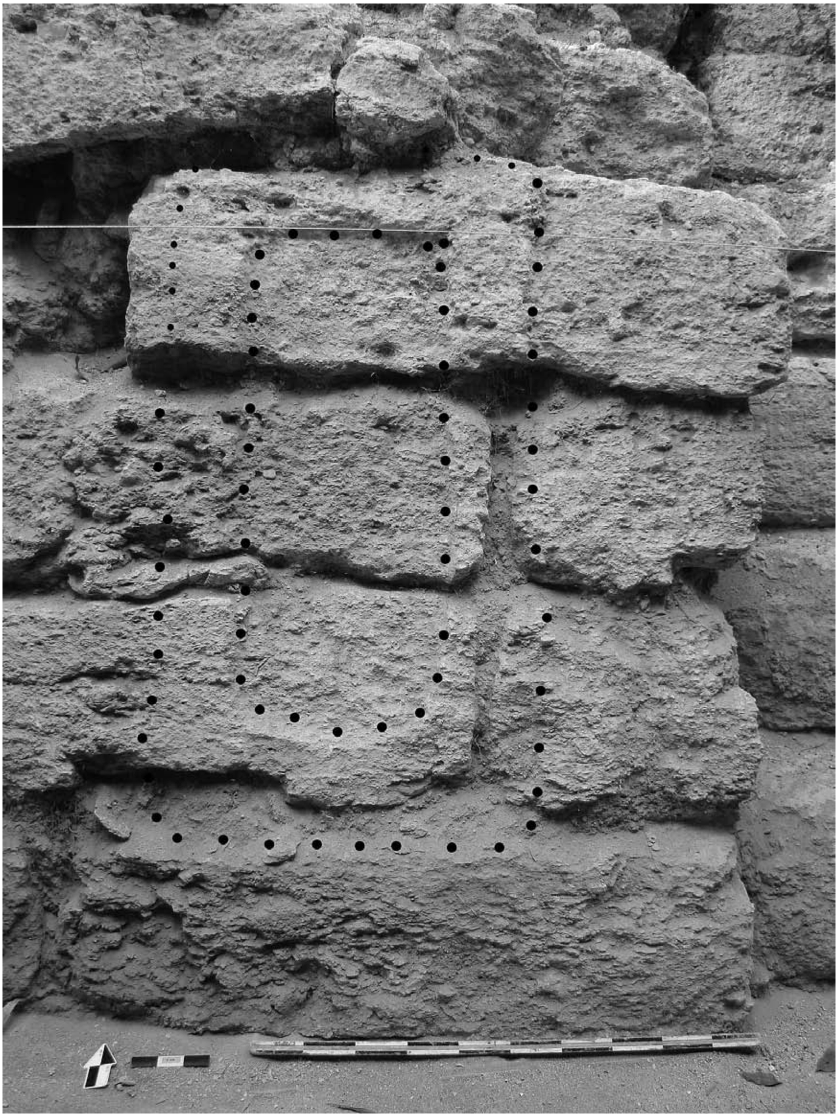
Some of the most radical changes during the late Middle Preclassic period occurred in masonry construction patterns (see Hansen 1998). The small, roughly hewn flat stones used to construct vertical walled platforms in earlier periods measured roughly 25 x 28 x 8 cm (Fig. 8.16). By the late Middle Preclassic these had been replaced by massive, finely hewn stone blocks measuring nearly 1 m long by 50 cm high and 50 cm wide (Fig. 8.17). These larger stones were placed in the walls of public structures with the long axis exposed, maximizing the use of stone and indicating a clear specialization in the labor force required to quarry and transport the material (Woods and Titmus 1994a, 1996; Hansen et al. 1997; Hansen 1998). Experimental data obtained by James Woods and Gene Titmus in quarry excavations at Nakbe indicated there were several levels of craft specializations involved in making the stone tools used to cut and shape megalithic blocks. There were additional quarrying strategies to cut the blocks, as well as varied labor specializations involved in shaping the blocks themselves, each requiring approximately 34 man-hours to produce (Woods and Titmus 1996:484–85). The presence of monumental architecture built from megalithic blocks (600–1000 pounds per block) provides good evidence for a centralized political authority that commissioned and executed the projects (see Helms 1993:78–81). These monumental projects gave rise to architectural innovations, including the apron molding (a sloping projection over sharp inset at the base of a façade), a design that lasted for over a thousand years as a hallmark of Maya buildings.

The use of lime stucco is another defining characteristic of lowland Maya architecture, in addition to monumental masonry. Lime stucco was used in vast quantities. It was applied to the interiors and exteriors of walls of public and private structures, residences, platforms, temples, causeways, and to plaza surfaces. Great amounts of labor were required to quarry and transport the limestone, firewood, and water to make lime plaster, indicating the need for centralized political and economic control over the production, distribution, and utilization of labor and costly resources (Schreiner 2001, 2002, 2003; E. Hansen 2000; E. Hansen et al. 1995).

All of these construction strategies were utilized in monumental Middle Preclassic architecture at El Mirador, Nakbe, Xulnal, and particularly at El Pesquero. A fortuitous discovery at El Pesquero in 2009 of an intact Middle Preclassic structure buried within a later, Late Preclassic structure has revealed the extraordinary complexity of such early architecture, with roof



8.16. Early Middle Preclassic platform (800–700 BCE) at Nakbe, showing the vertical walls, thin plaster, and small, crudely hewn stones (Photo by R.D. Hansen).



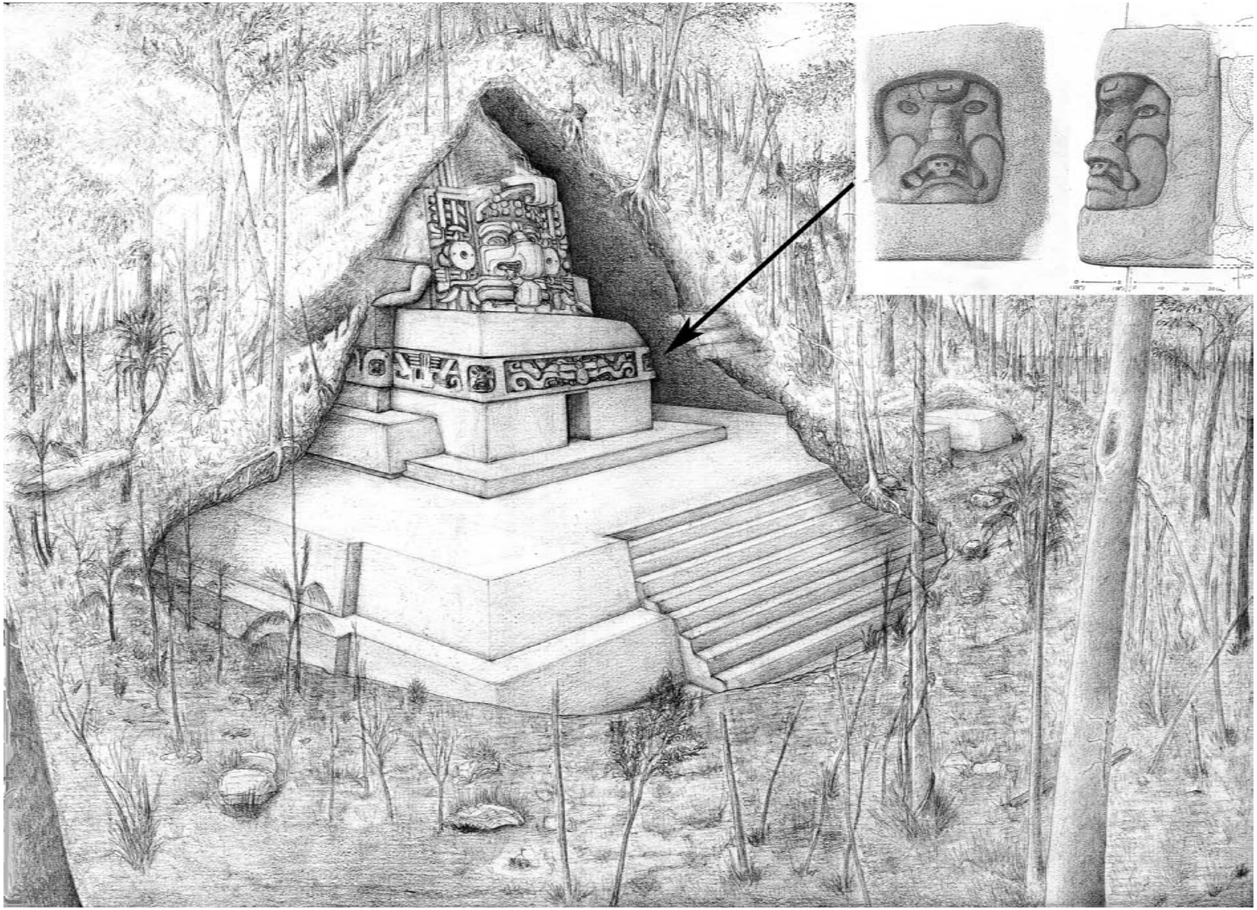
8.17. Massive elongated blocks (measuring 1.4 x .5 x .45 m) in Structure 200 of the Cascabel Group at El Mirador, which appeared at the latter part of the Middle Preclassic period (600–400 BCE). This architectural material signaled the advent of quarry specialists in the Mirador Basin. Note the rectangular earspool indicating architectural art, defined by dots (Photo by R.D. Hansen).

combs, corner masks, and a unique form of vaulted chamber (Mejía et al. 2010) (Figs. 8.18 and 8.19). Recent explorations and excavations at the site of Yaxnocah, located to the north of El Mirador and south of Calakamul in Campeche, have also identified monumental Middle Preclassic architecture (Kathryn Reese-Taylor, pers. comm. 2011).

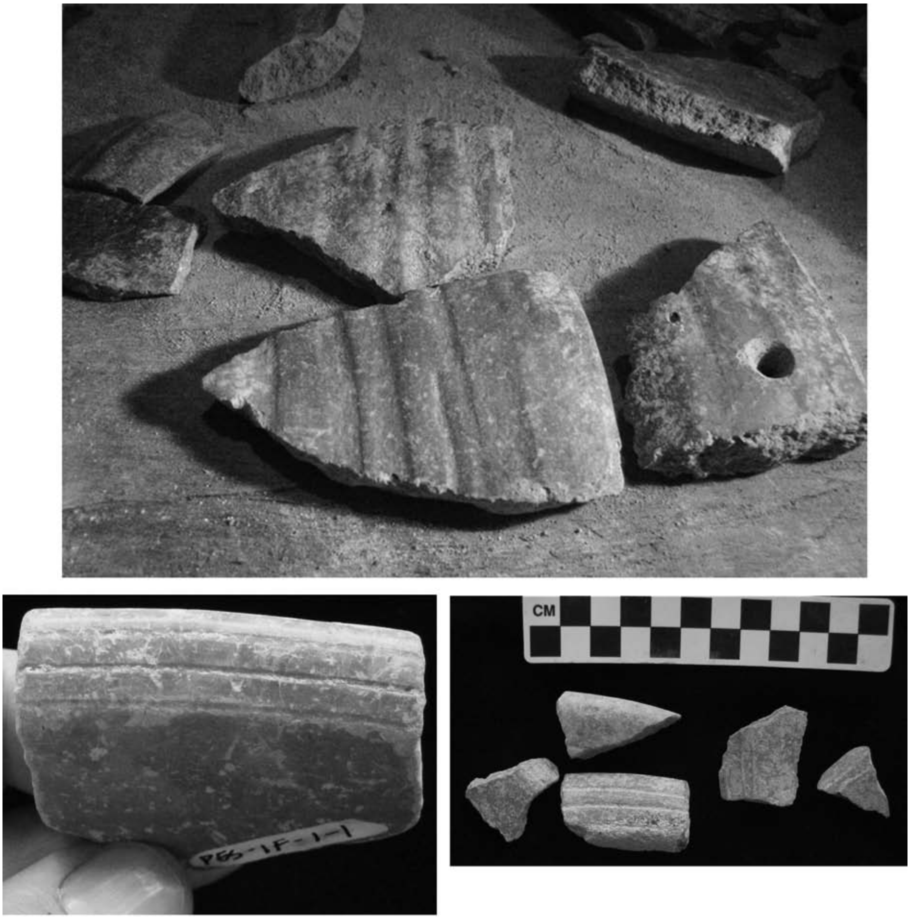
Another architectural innovation confirmed to date to at least the late Middle Preclassic period is the creation of architectural art, consisting of monumental masks and associated panels, as evident in El Mirador Structure 200 and Structure 34 Sub 1 (Fig. 8.20). One of the most frequent iconographic elements is the presence of the J-scroll-and-bracket motif, a feature also noted on a late Middle Preclassic structure at Rio Azul (Valdez 1995).

Early Causeways

The late Middle Preclassic period was marked by the construction of the Basin's first causeways, known as *sacbeob* or "white roads." Four and possibly five sacbeob have been identified at Nakbe from this period—the Kan, Palma, Kancito, the Northern Nakbe, and Mirador causeways—and evidence for similar antiquity has been found for the Sacalero, Tintal, and Nakbe casueways at El Mirador. The Kan, Palma, and Sacalero causeways connect early architectural groups within Nakbe and El Mirador, while the Mirador, Nakbe, and Tintal causeways link the sites of Nakbe, El Mirador, and Tintal. The earliest levels of these causeways date to the late Middle Preclassic period (600–400 BCE) (Suasnávar 1994; Suasnávar and Hansen 1997; Hernandez and Schreiner 2006), indicating that organized labor had been marshaled into intra-site and extensive inter-site communication systems within the Basin (see Fig. 8.2). These causeways were elevated, modified, and repaved during the Late Preclassic and additional causeways constructed (e.g., the Danta Causeway) with thick plastered floors, measuring 23 to 50 cm thick (Suasnávar 1994; Suasnávar and Hansen 1997; Suasnávar 1994; Schreiner and Hernandez 2008, 2009; Hernandez et al. 2007; Hernandez 2008). The massive size of these major causeways, some of which extended to more than 24 km in length, and range from 24 to 40 m wide (the Sacalero causeway near the Cascabel Group at El Mirador is 50 m wide) and 2 to 6 m high, incorporated massive amounts of labor and materials in their construction and their periodic maintenance. Excavations by the Mirador Basin Project, under the supervision of Tom Schreiner and Enrique Hernandez, in the Tintal-Mirador causeway have demonstrated the use of

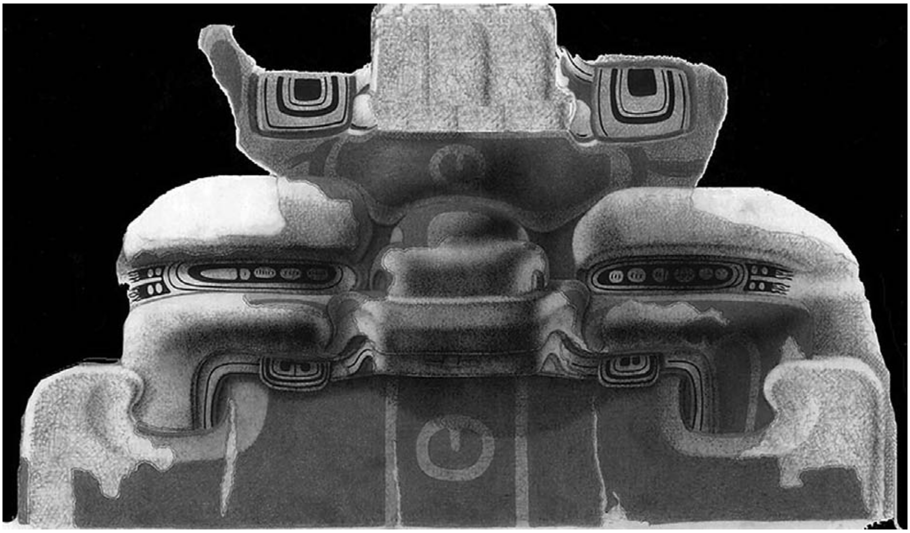


8.18. Isometric drawing of a Middle Preclassic structure buried beneath a Late Preclassic building at El Pesquero, discovered by the Mirador Basin Project in 2008 (Drawing by Hiro Iwamoto, ©FARES 2009).



8.19. Ceramics recovered from the floor and fill of Structure 1-Sub at El Pesquero, Mirador Basin (Photo by R.D. Hansen).

2.88 million m^3 of construction fill in the Tintal causeway alone, with a total of up to 10,000 m^3 of costly lime mixes per kilometer to form the plastered surfaces (Hernandez et al. 2008). The organizational skills required for the labor and construction of such massive features, plus the quantities of fill and processed lime resources required both centralized control and the political, economic, and social cohesion between nearly every major Preclassic center of the Basin. The causeways increased the productive potential of both managerial elites and agricultural labor by allowing quicker and easier transport of products and commodities (Chase and Chase 2001).



8.20. Late Middle Preclassic mask on the façade of El Mirador Structure 34 Sub 1 (Drawing by G. Valenzuela, ©FARES 2009).

They also served as water management systems, religious procession ways, and perhaps even as boundary markers (Suasnávar and Hansen 1994; Shaw 2001; Hernandez and Schreiner 2006). These massive constructions consolidated a large work force laboring for the "common good of society," allowed increased social and economic interactions between neighboring polities, and contributed to the overall organic solidarity of the population, all factors crucial to avoiding fissioning or rebellion against an emerging power structure (Bandy 2004).[5]

The architectural development and public works projects established during the late Middle Preclassic period suggest an increasingly centralized hierarchical power structure was emerging or had emerged in the major centers of the Mirador Basin. As Sharer and Traxler propose (Chapter 1, this volume), the evidence for the existence of the institution of sacred kingship by the Late Preclassic era at San Bartolo and elsewhere in the Maya lowlands (Chapters 11 and 12, this volume) makes it reasonable to propose that early versions of Maya kings were ruling at the larger Middle Preclassic centers in the lowlands, such as Nakbe, Xulnal, Tintal, El Pesquero and El Mirador in the Mirador Basin. Part of this developmental process involved legitimization through the erection and portrayal of human figures on massive stelae, large subsistence and economic projects (raised field and terrace agriculture systems, causeways, reservoirs, dams, canals, and quarries), and the construction of impressive structures and platforms of ideological and social importance.

The presence of the Middle Preclassic causeways is perhaps the strongest evidence for the beginnings of a state-level society in the Mirador Basin, because it implies a cohesion of the major sites into a single, centralized organization with relatively easier access of products and services. This is suggested, in part, by the uniformity of ceramics, lithics, architecture, and trade commodities. While it is likely that the rulers of the Middle Preclassic centers of the Mirador Basin operated in concert, as Sharer and Traxler suggest (Chapter 1, this volume), centralized control would have been facilitated if greater authority was vested in one ruler, perhaps a ruler of Nakbe or El Mirador, who like later Classic Maya kings may have exercised the power to "oversee" inaugurations of subordinate rulers and other events in the Basin's capitals (see Martin and Grube 2000).

Early Stone Monuments

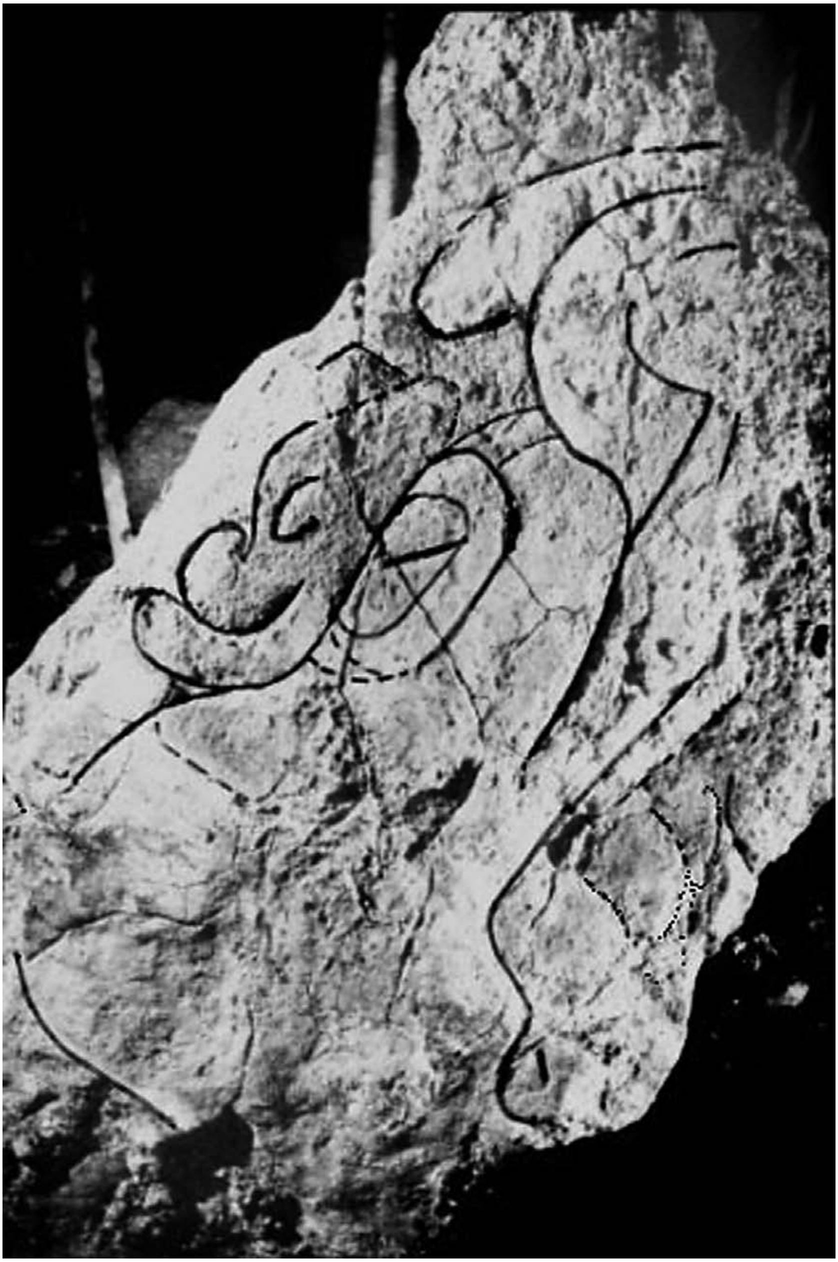
In a variety of societies in ancient Mesoamerica, manifestations of power are perhaps most easily observed in stelae and other stone monuments erected at sites where the political and economic authority could commission such works. During the Classic Maya period, hundreds of these monuments, termed *lakamtun* or "banner stones" (Stuart 1996), were placed in important plazas or in front of temples, palaces, and/or public buildings commemorating historical and other chronologically significant events. Such displays of political and religious authority were presided over by the *K'uhul Ajaw* or "sacred king" (Martin and Grube 2000). The antiquity of the stela cult extends far into the Middle Preclassic period, to at least ca. 1000–800 BCE on the Gulf coast, at Chalcatzingo in the central Mexican highlands, and in the Valley of Oaxaca (see Chapters 3 and 4, this volume), if not earlier (Cyphers 1997b, 2004a). Cyphers has proposed that the majority of the sculpture dates to the "apogee" of San Lorenzo between 1200 and 800 BCE (1996; see also Chapter 4, this volume). Yet these monuments cannot be accurately dated due to disturbances by later occupants of the site and the fact that "the overwhelming majority of San Lorenzo sculptures have no stratigraphic associations whatsoever…" (Coe and Diehl 1980:294; see also Graham 1989, 1991; Hansen 2005:53).

The early rulers of Chalcatzingo and polities in both the Maya and Oaxacan regions probably became acutely aware of the social and political advantages of monument carvings and dedications, but the Olmec clearly exploited sculptural manifestations of personified power and associated ideologies most successfully. Interestingly, early Olmec rulers apparently relied on in-the-round portraiture (colossal heads and full figures of tabletop altars), while the early rulers of Chalcatzingo, and those in the Maya area, favored stelae with low-relief portraits (Grove, Chapter 3, this volume).

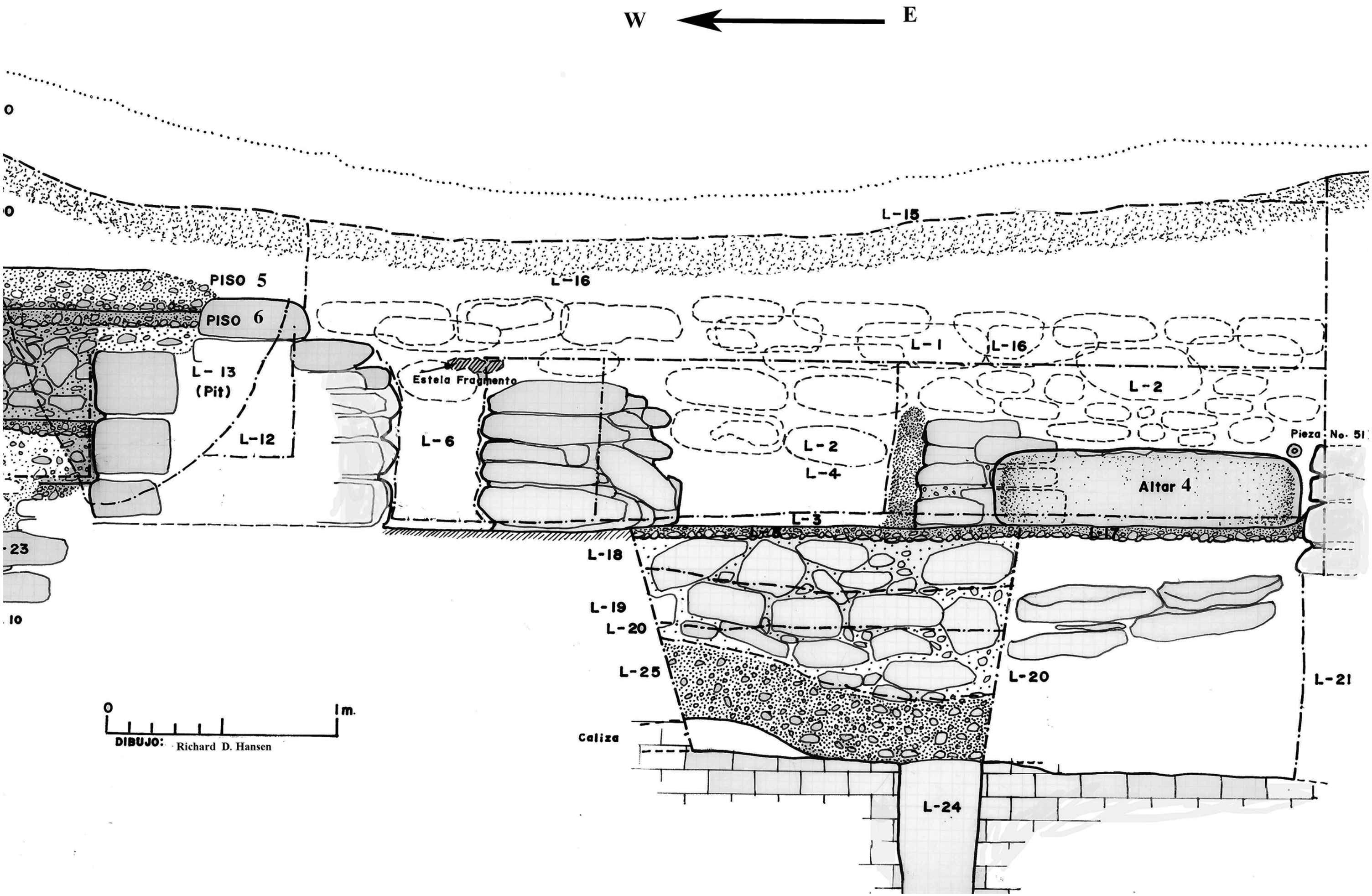
In the Mirador Basin, extensive research has revealed carved monuments that correspond to much of the established chronological sequences of the area.[6] Examination of Preclassic monuments in their original context has been limited, however, because the majority of Preclassic stelae, altars, and carved fragments were re-erected or moved by the Late Classic occupants of the Mirador Basin.[7] In spite of the lack of original context for many monuments, their stylistic format and surrounding archaeological context permit a rough chronological seriation.

The presence of carved monuments in the Mirador Basin is less common than one would surmise due to activities of later societies. At present, the earliest-known carved monument in the Mirador Basin is thought to be Stela 1 at the site of La Isla, located on a patch of elevated terrain in the bajo between Nakbe and El Mirador (Fig. 8.21). This standing stela was discovered with a thin altar (Altar 2) of uncertain age on the west side of a 5 m high structure. Excavations by the Mirador Basin Project, supervised by James Woods, indicated that the monument was likely reset by later occupants. Stela 1 measures 1.67 m high, and is a slightly contorted, unshaped boulder with an incised, upward-peering crocodilian creature bearing a bifurcated flame eyebrow, an elevated nose assemblage, and shark-like maxillary teeth. The form of the sculpture, the unmodified nature of the stone, and the early iconography suggest a Middle Preclassic date. The monument's association with the vast bajo between Nakbe and El Mirador is significant, as this is an area of initial settlement exploiting the rich wetland marshes of the region.

The most securely dated monuments in the Mirador Basin are Nakbe Altar 4 and La Florida Stela 1. Nakbe Altar 4 was discovered *in situ* on a sascab floor at the base of a Middle Preclassic platform that formed the site's eastern E-Group structure (Fig. 8.22). It was sealed by Middle Preclassic fill (Lot 16) and two damaged Middle Preclassic floors (Floors 5 and 6). The monument was placed precisely on the centerline of the eastern E-Group



8.21. Middle Preclassic Isla Stela 1 (Photo by R.D. Hansen).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DIBUJO: Richard D. Hansen

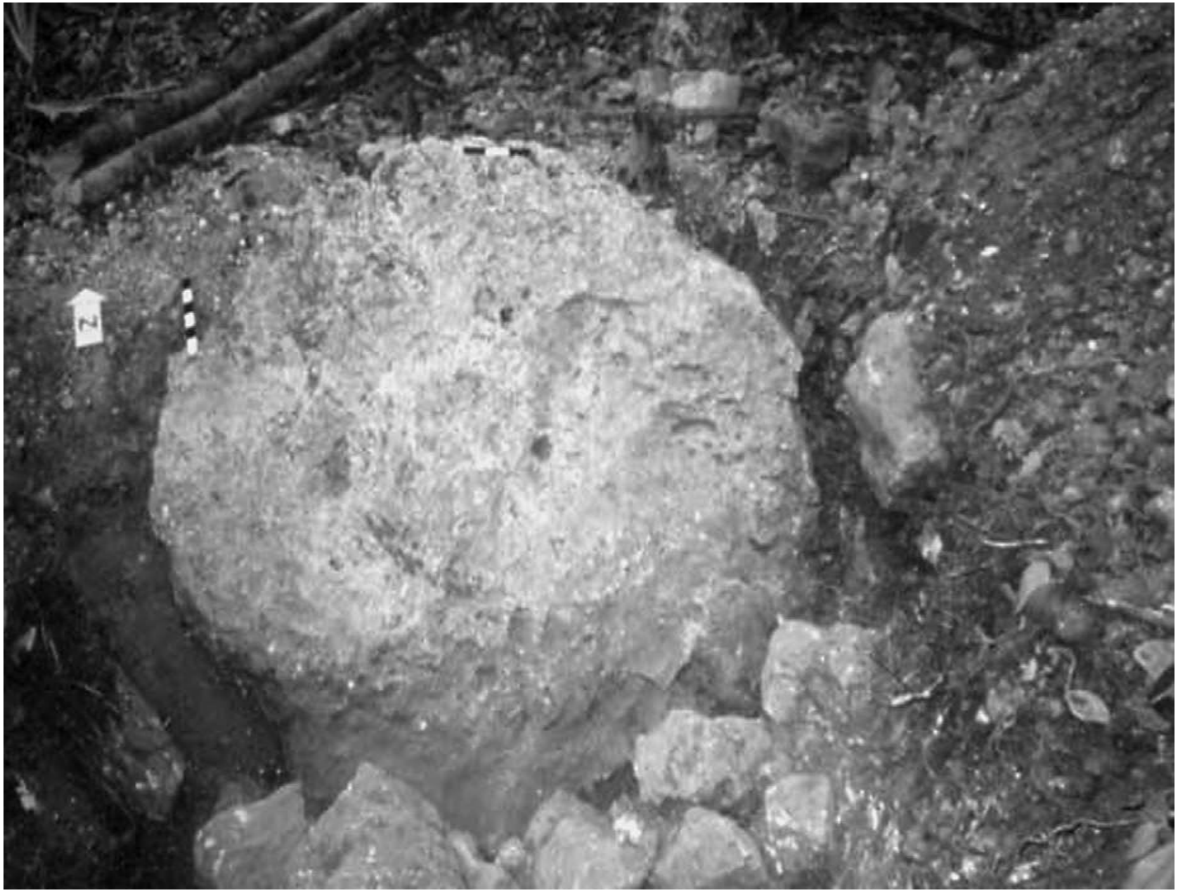
structure, indicating a consistency with Mesoamerican patterns of ritual placement of monuments. A single, small blue-green stone bead was found several centimeters above the center of the stone. The monument had been buried by a later Middle Preclassic platform faced by large, poorly mortared stones. On the basis of both ceramic and C-14 analyses, the monument dates to around 800–600 BCE (uncalibrated) (Beta 31755, Beta 31756, UCLA 2830, UCLA 2833; see Hansen 2005).

La Florida Stela 1 is an uncarved (or perhaps severely eroded) monument, and also dates to the Middle Preclassic era. It is a little more than a meter high in its current deteriorated state, and had been erected and later buried in a Middle Preclassic platform (Fig. 8.23). Associated Mamom ceramics suggest a date between 600 and 400 BCE.

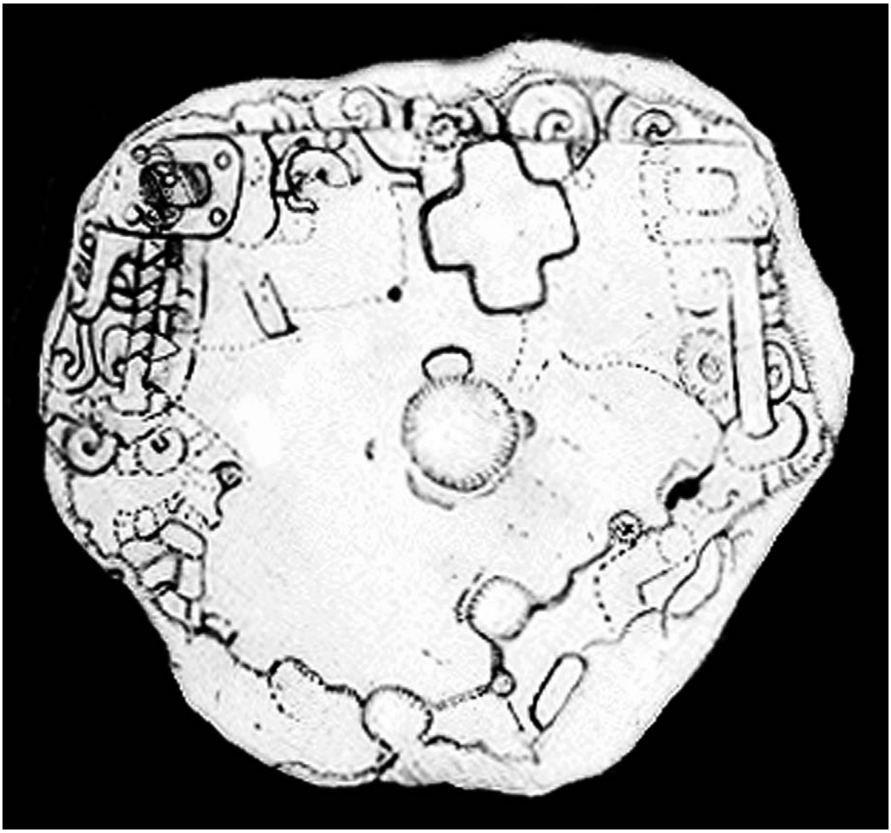
Nakbe Monument 8 (Fig. 8.24) is a less securely dated Preclassic carved monument. A large, semi-circular monument, measuring 1.65 m wide, 1.5 m high, and roughly 0.70 m thick, it was discovered upside down near a large Middle and Late Preclassic palace construction on the southern side of the massive Structure 59 in Nakbe's East Group. This location is near a concentration of quarries and approximately 200 m southeast of the East Group ball court. It's possible the monument was associated with the ball court (dating to the late Middle Preclassic and early Late Preclassic periods; Velásquez 1999; Hansen 2001a:55), perhaps as a marker. However, there is also evidence that it was a throne, possibly dating to the time of the Middle Preclassic Nakbe East Group.

The principal scene on Nakbe Monument 8 shows two downward-peering saurian heads, one on each side, emanating from large rectangular ear flares with four bosses. Both heads have J-scroll and bracket elements appended to the end of the snout. The heads are joined by a band consisting of a series of scrolls that curve away from each other and the centerline of the monument. This band represents an ancestral sky band element found in later Maya art. The dual-headed serpent bar forms the serpent wing motif of the celestial bird, or Principal Bird Deity, on numerous early monuments associated with royal power in the southern Maya area, such as Takalik Abaj Altars 12 and 13, Izapa Stelae 18 and 23, and Kami-

8.22. *facing page* Profile drawing of Nakbe Op. 51 C, 51 I, 51 H, showing Middle Preclassic Altar 4 directly on a Middle Preclassic floor and sealed by Middle Preclassic fill (Lot 16) and what remained of two Middle Preclassic floors (Floor 5, 6) (Drawing by R.D. Hansen).



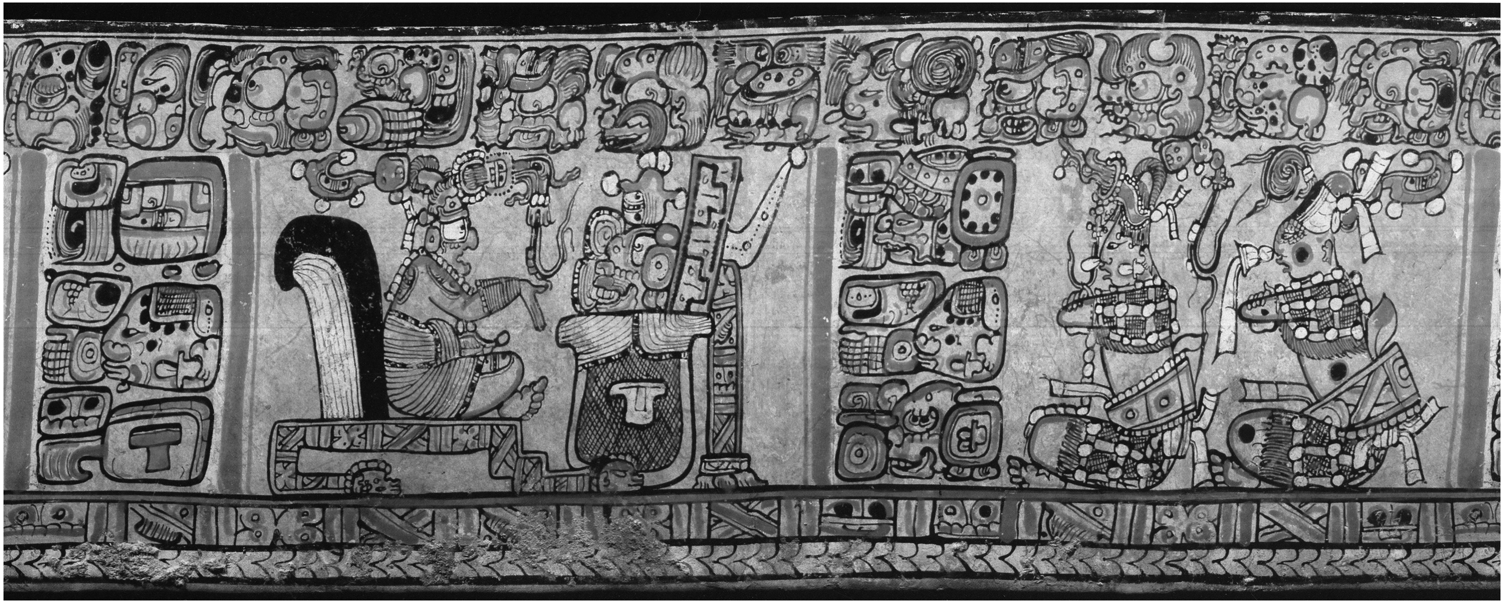
8.23. La Florida Stela 1, a monument which had been sealed in Middle Preclassic fill (Photo by R.D. Hansen).



8.24. Nakbe Monument 8, a possible throne stone, believed to date to the late Middle Preclassic (Drawing by R.D. Hansen).

naljuyu Altar 9 (Kappelman 1997; Guernsey 2006). The dual-headed saurian image has been depicted as a supernatural throne for the gods (see Kerr 1138 with Itzamnaah seated on a dual-headed serpent throne), forming a metaphor for a ruler posturing as a divine mediator (Fig. 8.25).

At a later time, a cross-shaped element, or *k'an* cross, was pecked near the upper center of the stone, along with a curious series of pecked basins placed along the lower edge of the stone. The *k'an* cross appears to have been intrusively pecked, perhaps as a semi-homophonous reference to the original name of the ancient polity, the Kan Kingdom, which controlled the Mirador Basin in the Preclassic period (see discussion below). There is, however, a phonetic distinction between *ka'an* or *chaan* (meaning "sky")



8.25. A rollout photo of a looted vessel (Kerr 1138) showing the Hero Twins before Itzamná, who is seated on a dual headed serpent throne (Photo © Justin Kerr, Vol. 1, 1998, No. 1138).

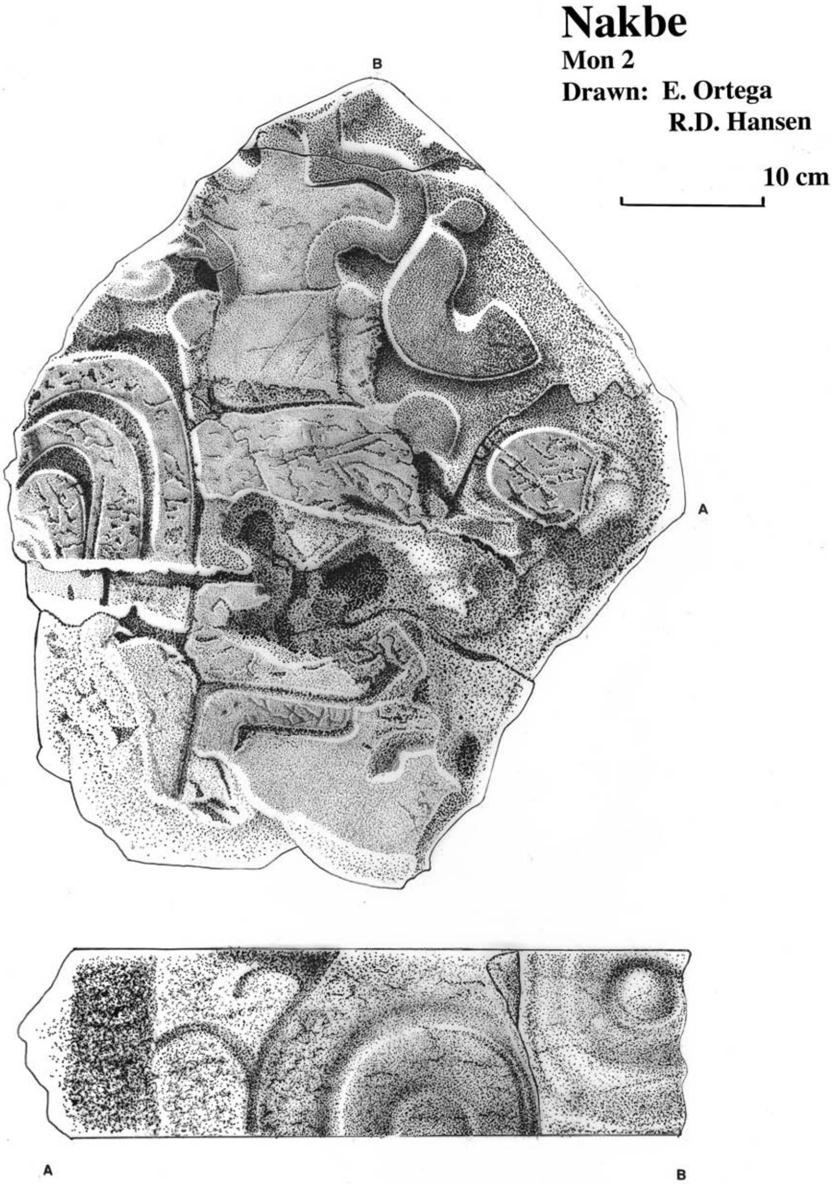
and *kan* or *chan* ("serpent"), perhaps indicating that if the *k'an* cross on Nakbe Monument 8 were a homophone or phonetic reference, it was done by someone who was basically illiterate.

The emphasis on deity portraits is a pan-Mesoamerican theme, suggesting that the emerging elite may have been promoting a religious ideology to justify growing differences in wealth, rank, or power, a strategy commonly employed by emergent state societies throughout the world (see R. Hansen 2000). It appears that human portraits appeared slightly later than those of deities in the Mirador Basin, as is evidenced by Nakbe Monument 2, Nakbe Stela 1, and Tintal Stela 1. Early Maya and Zapotec sculptures often depict deities in contrast to the predominance of human portraits among the Olmec and at Chalcatzingo in the Mexican highlands (Grove, Chapter 3, and Cyphers, Chapter 4, this volume), variations that illustrate important synchronic cultural differences.

Nakbe Monument 2 (Fig. 8.26) was placed on a floor within a room on Structure 52, a 1 m high Late Classic platform placed on the centerline axis in front of Middle Preclassic Structure 51 in Nakbe's East Group. Monuments 2 and 3 were placed secondarily in fragmented form and were associated with dense quantities of Late Classic ceramics, burned copal, and a few obsidian blades. Monument 2 consists of a limestone slab fragment with lined trefoil elements attached to a square cartouche with four carved dots on the corners, forming a quincunx, similar to elements in Olmec and early Maya art. This motif was apparently attached to a human profile head, with a major portion of the face carefully pecked away in antiquity. The profile face is associated with a "question mark" scroll and an early earflare assemblage, indicating consistency with early pan-Mesoamerican iconography. Along with Nakbe Monument 3, the edges of Monument 2 are carved with a series of concentric semi-circles and lines (Fig. 8.26). While unusual in the Maya lowlands this is consistent with early monuments from the Pacific coastal and piedmont regions, as well as early Zapotec sculpture (e.g., San Jose Mogote Stela 1).[8]

CHANGES AT THE END OF THE MIDDLE PRECLASSIC PERIOD (CA. 500–400 BCE)

There were important changes marking increased centralization of authority at Nakbe by the end of Middle Preclassic period, between 500 and



8.26. Middle Preclassic Nakbe Monument 2 (Drawing by E. Ortega and R.D. Hansen).

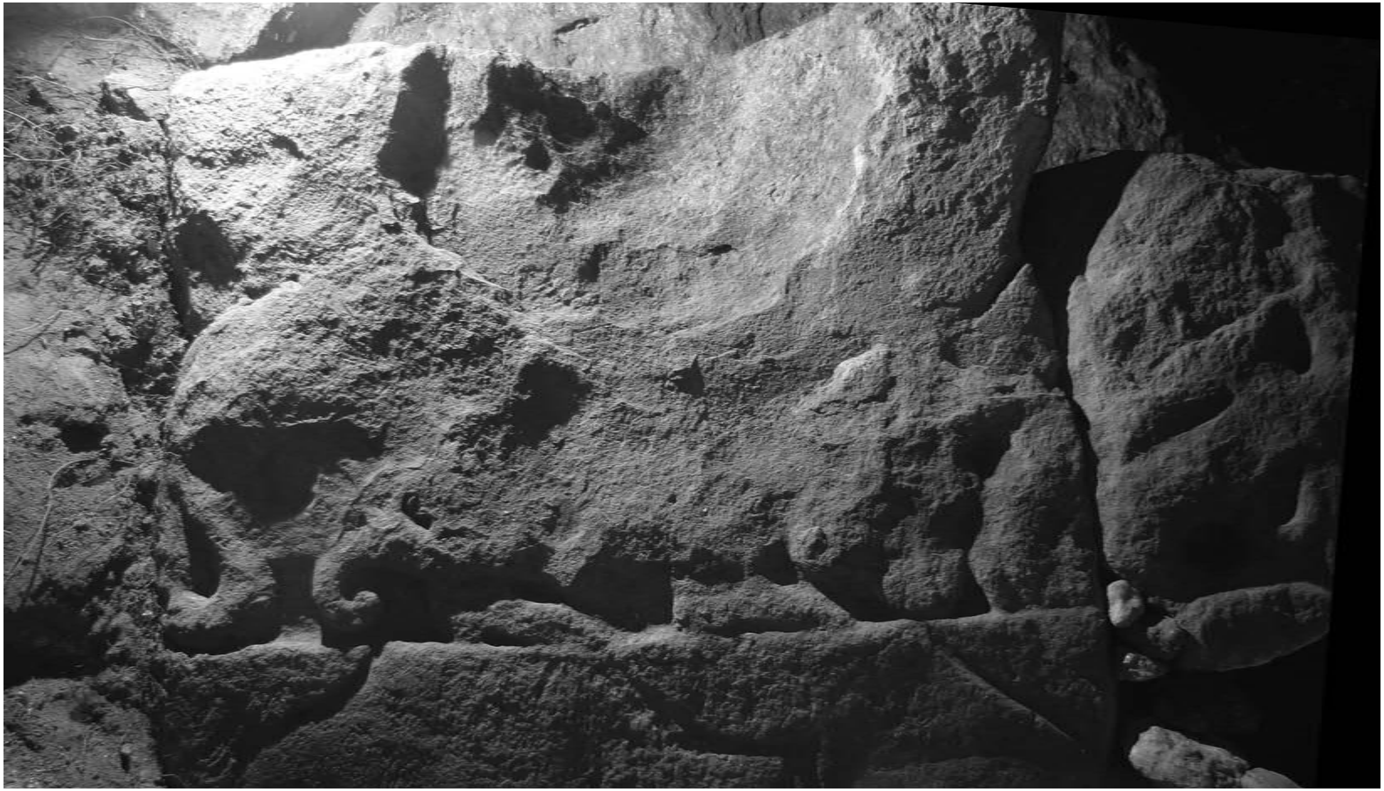
400 BCE. Large-scale architectural programs were enacted that involved the construction of new monumental terraced pyramids, causeways, ritually significant architectural formats, and radical changes in quantity and quality of construction materials, such as limestone block size, shape, and form. The utilization of artificial agricultural terraces indicates further intensification of food production, and the establishment of causeways to facilitate intersite commerce suggests that the political and administrative hierarchy was moving towards a more complex and centralized system. Specific architectural forms of ritual and ideological importance, such as the Middle Preclassic E-Groups, were constructed to their maximum Preclassic height and volumes not only at Nakbe (and possibly El Mirador, Wakna, and Xulnal), but also at Tikal. These and other ritually significant architectural forms suggest a manipulation of religious ideology (Hansen 1992a, 2000). The impressive size of architecture and the control of a vast labor pool suggest that religious authority was one of the catalysts for political centralization and organic social solidarity, as well as the intensification of socio-political and economic power of an emerging ruling elite (Hansen 1990, 1992a, 2000; Demarest and Conrad 1992; see also Kolb 1994).

By the end of the Middle Preclassic period, or perhaps by the beginning of the Late Preclassic (ca. 400–300 BCE), stelae in the Mirador Basin assumed their largest size and format of any subsequent or previous period (Hansen 1992a, 1992b, 1992c, 1995, 2001a). These monuments depict Preclassic kings, portraits of anthropomorphic deities, or a combination of the two, together with all of the trappings of royal power. Carved monuments such as Tintal Stela 1, Nakbe Stela 1, and perhaps fragmented Pedernal Monument 2 average about 4 to 5 m in height and approximately 2 m wide. In contrast to earlier sculptures in the Mirador Basin, several of these monuments were carefully carved on both sides with standing human figures, either as royal portraits or as deity impersonators. Similar carved human portraits dating to this time have been found at Cival, Peten (Estrada-Belli, Grube et al. 2003; Estrada-Belli et al. 2006), and Actuncan, Belize (Grube and McGovern 1995; Grube and Martin 2001).

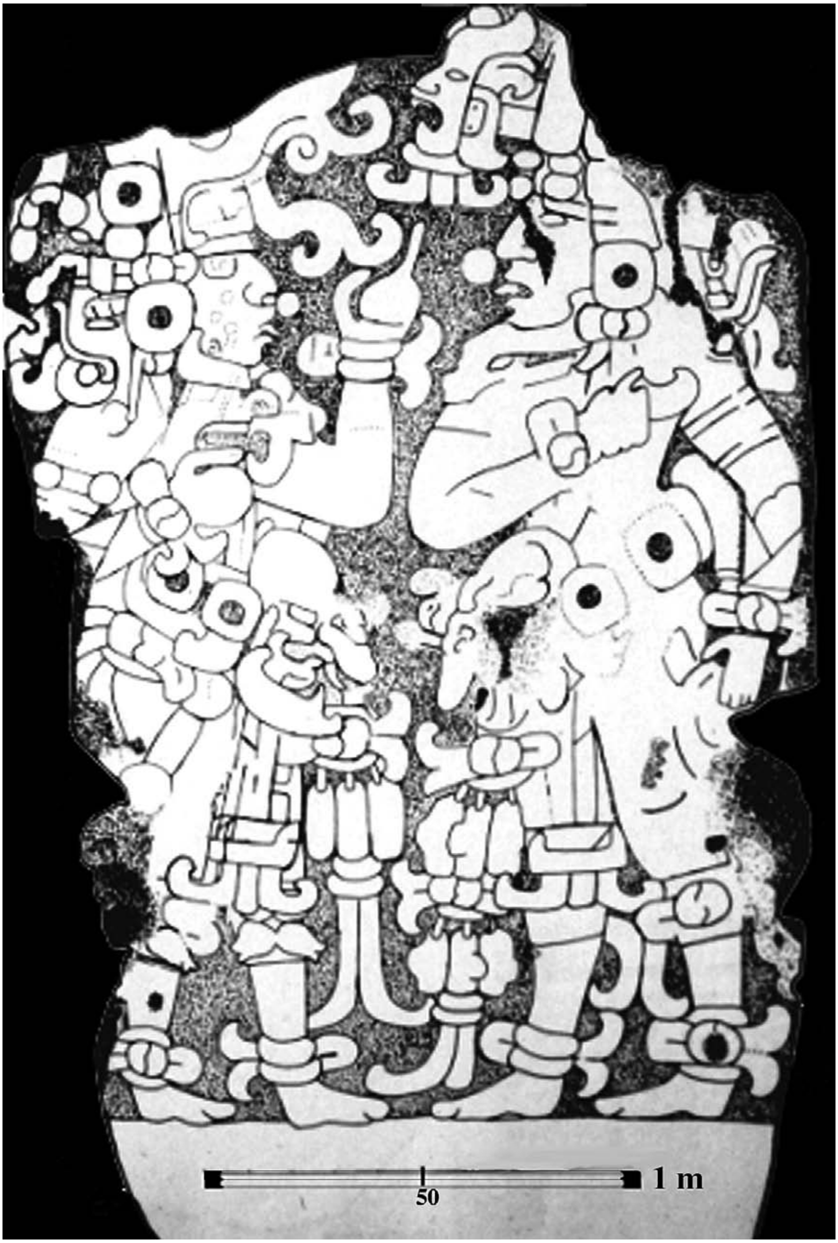
In contrast to subsequent or previous monuments in the Mirador Basin, these monuments were carved from exotic stones. In the case of Nakbe Stela 1, the stone was of an extremely hard, non-local crystalline limestone. Tintal Stela 1 was carved from red sandstone imported from the distant Altar de Sacrificios area (Schreiner n.d.).[9] At contemporaneous La Venta, the Olmec also utilized a variety of exotic stones, including schist, serpentine, and gneiss (as opposed to the more common basalt), for the monuments placed around Pyramid C-1 (González Lauck 1994:98; see also Clark, Chapter 5, this volume).

Tintal Stela 1 (Fig. 8.27) was first found by Ian Graham and a preliminary drawing was published by Justeson and Mathews (1983). The sculpture had been reset in the middle of a 3 m high Late Classic vaulted structure exposed by looters. The stela was associated with a round stone altar that may have been contemporaneous with the stela, and, as at Nakbe, Pedernal, and Holmul, had been the scene of extensive ritual behavior, which included the burning and smashing of numerous whole vessels, including drums, bowls, and vessels typically used to hold liquids (Chinja Impressed type). The stone had been intentionally mutilated in antiquity, with deep pecking in the center causing the over 7-ton monument to snap in half, nearly obliterating the iconography. The visible image portrayed what appears to be a single standing human protagonist and a kneeling personage, with only the lower portions of the legs visible with ankle knots and flared tassels, similar to those at San Bartolo, Uaxactun, and Nakbe. The base of the monument has the remnants of a large earlier carving of unusual form, perhaps part of an original boulder sculpture. In addition, extensive Preclassic "graffiti" was carved on the base, which survived because of its burial below floor levels. An important Early Classic burial and associated funerary offerings were discovered at the base of this monument (Hansen et al. 2006), suggesting that the monument had been re-erected and placed in its present position during Early Classic times.

Nakbe Stela 1 was found in 45 fragments and had been intentionally smashed in antiquity (see Hansen and Guenter 2005; Fig. 8.28). The sculpture depicts two standing, barefoot individuals dressed in royal regalia with elaborate headdresses, belt heads with plaques, and large inset earflare-like spools, consistent with other known early examples such as the Loltun cave carving (Freidel and Schele 1988a, 1988b). The figure on the left is indicating upwards with his left hand, index finger extended, toward a profile head appended to the headdress of the individual on the right. There is a strong iconographic relationship between the appended headdress figure and God E, the Maize God, in Olmec and Maya cosmology (Taube 1996a, 2004; Fields 1989, 1991; Freidel 1990; Hansen 1992a). The identity of this individual as the Maize God is also confirmed in the San Bartolo murals (O'Neill 2002; Kaufmann 2003; Saturno, Taube et al. 2005a).



8.27. A portion of Tintal Stela 1, showing the lower feet of a standing individual and a kneeling figure to the right. The massive sandstone monument is 2.17 m wide at the base line of the sculpture (Photo by C.D. Bieber).



8.28. Nakbe Stela 1, reassembled from 45 fragments (Drawing by R.D. Hansen and J.L Hansen).

While there is no doubt that the portrayed individuals on Stela 1 are dressed in royal regalia, the question is, Who were they? My original assessment was that they were either a representation, or a personification, of the Hero Twins of the *Popol Vuh* (Hansen 1992a, 2000). However, many known dual figures on other early monuments (e.g., Polol Altar 1, Kaminaljuyu Altar 1, Takalik Abaj Stela 5, El Baul Stela 1, and later monuments, such as Palenque Tablet of the Sun, Copan Altar Q, Altar L, and Motmot Marker) appear to commemorate transfers of power, as in showing an incoming ruler with a predecessor or founding father (Sharer 1994:106). It is possible then that Nakbe Stela 1 depicts a Maya ruler acknowledging a predecessor, one with considerable status, as the figure on the right has at least six appended plaques (versus three on the lefthand figure). Furthermore, the plaques on the figure on the right have an unusual projection, not unlike the form of a chest plaque found in Comitan, Chiapas (Lowe 1989b, 1994:125). While some have suggested that Olmec rulers actually intruded into the Maya lowlands, as possibly commemorated on Nakbe Stela 1 (Clark et al. 2000:494–95), this author contends that the monument represents a later ruler acknowledging a right to reign through a link to the founding ruler of the dynasty, shown in an ideologically acceptable format, such as the "Hero Twin" myth. The intrusive appearance of the Olmec in the Pacific coastal regions is striking, as noted by marked changes in ceramics and figurines (e.g., Lesure 2000, 2004), a phenomenon not evident in the Mirador Basin sites. Nevertheless, the possibility exists that the monument could portray the arrival of a foreign ruler in somewhat the same speculative manner as La Venta Stela 3 or the "Alvarado Stela" in the National Museum in Mexico are occasionally interpreted as representing the intrusion of a Maya ruler into the Gulf coast lowlands.[10]

It is suggested here that the similarities between the sizes and forms of the La Venta monuments and the great sculptures in the Mirador Basin are not coincidental, but are the product of a vigorous ideological competitiveness (see Lowe 1977, 1981, 1989a). The massive size, celtiform shape, and use of exotic stone in the Mirador Basin appear to match a similar trajectory of stelae manufacture in the Olmec heartland areas at about the same time (see Porter 1992). Monuments such as La Venta Stela 1, Stela 2, Stela 3, Monument 25, and Monument 26 provide strong comparisons in the similar changes in size, form (celtiform), the importation of exotic (non-local) stone, and rich iconographic themes. The La Venta monuments, along with

Nakbe Stela 1, also correlate with the emphasis on legitimacy during political centralization, a process known in numerous emergent complex societies (see Kolb 1994). The parallel development during this era in both the Gulf coast and Maya lowlands may be quite adequately explained by Renfrew's Peer Polity Interaction model (Renfrew 1986; see also Hansen 2005).

The discovery by William Saturno of the murals at San Bartolo, Guatemala, can perhaps refine the dating of the iconography of Nakbe Stela 1 and Tintal Stela 1. The similarities of the knot bundles on the ankles, the Maize God head, and the dress of the protagonists on Nakbe Stela 1 to the scenes in the San Bartolo murals are striking. Further iconographic connections are found on El Mirador Stela 4, which has two kneeling female figures with beaded ankles and breechcloths similar to the San Bartolo figures. Recent C-14 dating of the murals places them around 100 BCE (Saturno et al. 2005b), which is more compatible, stylistically, with the later El Mirador Stela 4, which dates to the Late Preclassic period.[11]

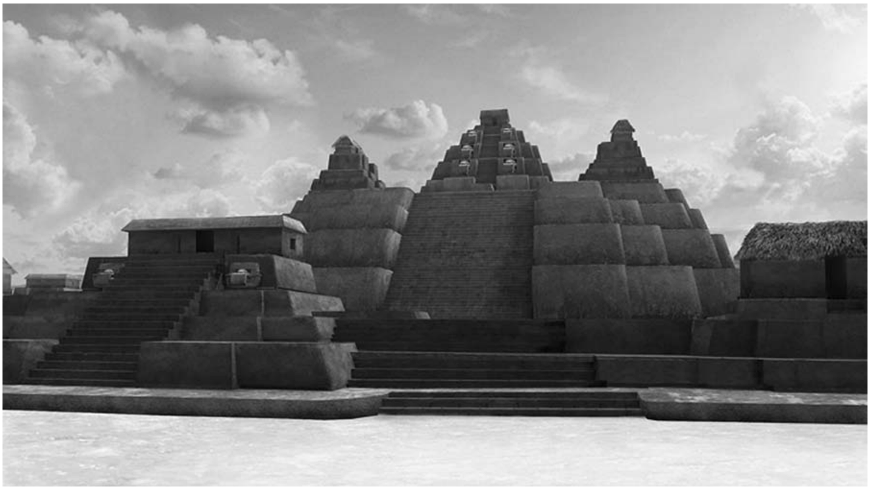
It is suggested here, however, that Nakbe Stela 1 and Tintal Stela 1 are earlier than the San Bartolo murals and El Mirador Stela 4 and most likely date to the late Middle Preclassic–early Late Preclassic period. This conclusion is based on: (a) Middle Preclassic archaeological contexts for monuments at Nakbe; (b) the diminutive size and the presence of early glyph panels on known Late Preclassic monuments in the Basin; (c) the use of exotic stone and the large size of the monuments that appears to coincide with the size and composition of monuments in the Olmec heartland; and (d) the thematic elements of the sculpture, which appear to be earlier than the Late Preclassic.

In summary, the Middle Preclassic period witnessed the introduction of sculptured stone monuments, demographic increases, agricultural intensification, and major architectural development, including causeways, reservoirs and agricultural systems, which created the demand for procurement and transport of architectural fill, limestone quarry specialization, lime production, and stucco utilization. There were major transformations in the size and form of limestone blocks used in architectural constructions. The cultural innovations were fueled by a differential access to wealth, organized exploitation of natural resources, implementation of systematic agriculture methods, and an increasing focus on labor intensification and specialist production systems. The result of these transformations served to consolidate the economic and political power of an emerging administrative elite. The evidence indicates that by the end of the Middle Preclassic period monuments depicting individual rulers began to appear at Nakbe and other sites in the Basin. These monuments significantly contributed to a powerful display of legitimization and would have impacted elite control over commoner subjects.

APOGEE OF LOWLAND STATES IN THE LATE PRECLASSIC PERIOD (CA. 400 BCE–150 CE)

The brief period between the Middle Preclassic and the Late Preclassic period (ca. 400–300 BC) does not appear to have been a simple transition. Pollen data from core samples obtained by the Mirador Basin Project from three lakes in the western Mirador Basin indicate that native forest had returned to the area during this particular narrow span of time, suggesting a temporary disruption of occupation (Wahl 2005; Wahl et al. 2005, 2006; Wahl, Byrne et al. 2007; Wahl, Schreiner et al. 2007). This observation has limited archaeological corroboration, suggested by the decomposition and weathering on Mirador Str. 34 Sub 1 prior to its burial by the Late Preclassic Str. 34. This "hiatus" was short-lived, however, based on associated archaeological and pollen data. Excavations indicate that within a short time, rulers in the Mirador Basin commissioned new monumental architecture of unprecedented size by the beginning of the Late Preclassic period (ca. 300 BCE). Structures between 40 and 72 m in height and measuring up to 600 x 300 m at the base were constructed throughout the Mirador Basin during this time, especially evident at large sites such as El Mirador, Nakbe, Wakna, Tintal, Xulnal, Lechugal, Paixban, Tazumal, and numerous smaller sites with radically new architecture (Hansen 1990:171–72; 1998, 2000).

In addition to an emphasis on monumentality, the manipulations by the emergent political, religious, and economic elite further consolidated the demand for and control of extensive labor systems in the early Late Preclassic period through the incorporation of both new and old ideological content in architectural formats. This included the establishment of the Triadic Architectural Pattern, one of the most consistent formats at the major sites in the Mirador Basin (Fig. 8.29). Triadic architecture became ubiquitous in the Late Preclassic Maya lowlands, and the form was adopted over a wide geographical area. El Mirador, itself, has at least 24 major triadic groups within the civic center, with more being discovered as the mapping extends



8.29. Tigre Complex at El Mirador (modified from drawing by Studio C, Guatemala; Courtesy of Fernando Paiz).

to the peripheral regions. The triadic arrangement is most likely related to the concept of the "Celestial Hearth" and the reference to Creation (see Hansen 1990, 1992a, 1998:77–81). Its use in subsequent periods, such as the Cross Group at Palenque, Caana Pyramid at Caracol, and the Early Classic Structures 5D-22, -23, and -24 at Tikal, was a conscious reference to the past and its ideological meaning.

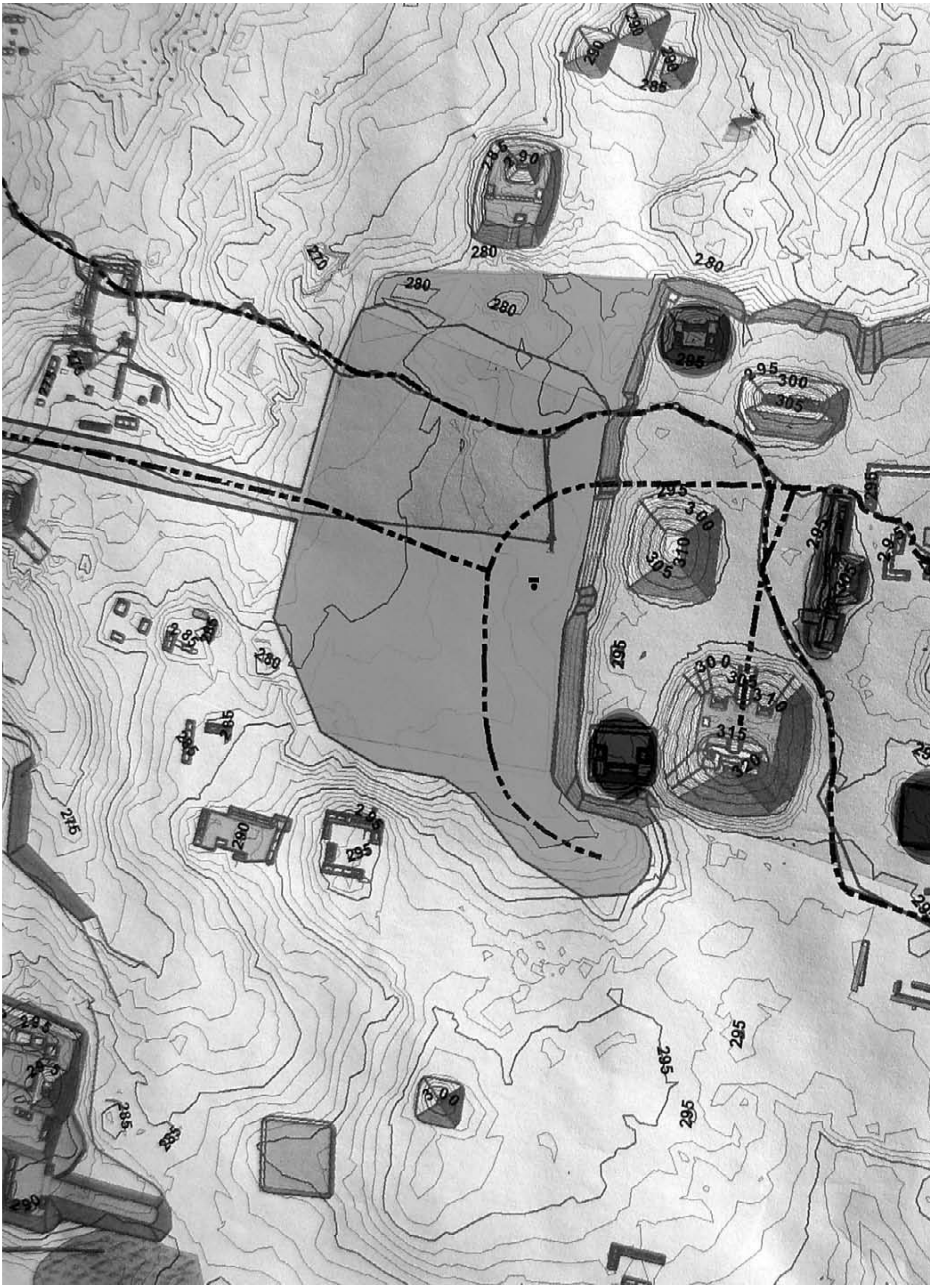
The placement of structures was planned with considerable precision, perhaps to conform to celestial and solar cosmograms. Archaeologist Carlos Morales detected a series of strategic alignments of buildings, forming parallel and perpendicular alignments, and isosceles triangle associations (Morales-Aguilar and Hansen 2005; Sprajc et al. 2009). Structure placements appear to have allowed shadows of tall buildings to fall on specific buildings on important days of the calender year, particularly the equinoxes (Hansen n.d.). Structures were also placed with specific alignments that correlate to solar movements and patterns (Sprajc et al. 2009).

The Late Preclassic Maya at El Mirador also utilized a form of atavism, a reversion to the ideology and thinking of former times. This is particularly evident on the first platform of Danta Pyramid (Fig. 8.30), where four smaller triadic structures form a square at each corner of the basal platform, with a fifth point represented by the eastern bar-like structure of the E-Group constructed on the platform, all forming a "quincunx" design consistent with Olmec and early Mesoamerican ideologies (Reilly 1994a 1994b, 1995a, 1995b; Taube 2004:13). In Mesoamerican art the antiquity of the quincunx, with a symbolic *axis mundi* in the center, extends well into the Middle Preclassic periods in the Olmec, Zapotec, and Maya areas, forming one of the ideological staples of early Mesoamerican cosmology (see Reilly 1994a, 1994b; Bauer 2005a, 2005b; Estrada-Belli 2006a). The incorporation of such ancient ideological content in architectural formats indicates that the administrative elite adhered to a vibrant religious ideological system, one capable of invoking and controlling vast amounts of labor, tribute, and economic and political power.

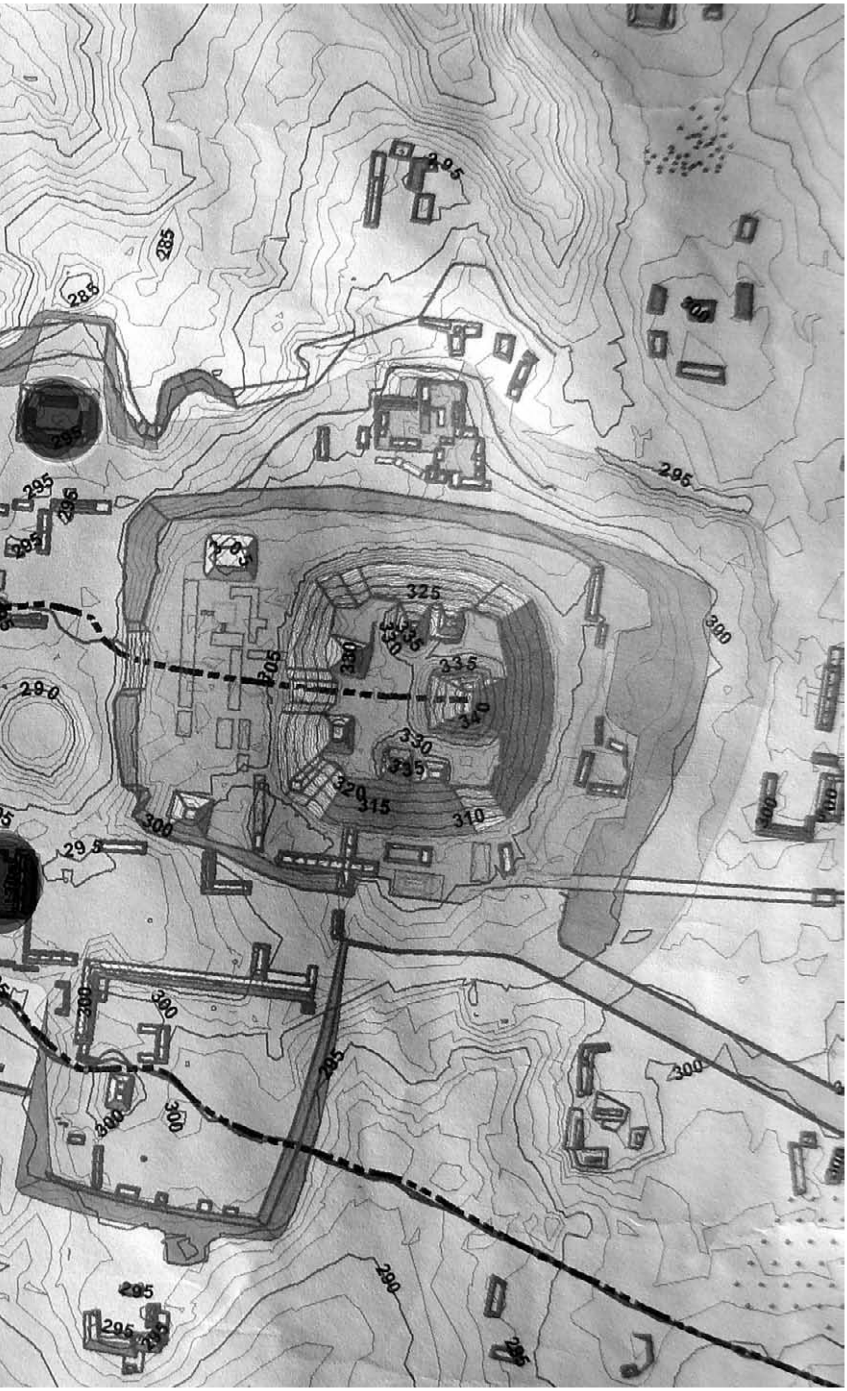
In addition, architectural sculptures rendered in deep relief consisting of deity portraits continued to be placed on facades flanking structure stairways. Monumental sculpture on building facades from the Middle Preclassic and early Late Preclassic periods were carved in minute detail in stone prior to applications of stucco (Nakbe Structure 1, Nakbe Structure 27, El Mirador Structure 200, El Mirador Structure 34 Sub1). Late Preclassic architectural sculpture, such as that on El Mirador Structure 34, Danta Pyramid, and La Pava Acropolis at El Mirador, utilized thick molded stucco placed over large stone armatures with only minimal prior stone carving.

As monumental architecture increased in size, the size of stone stelae appears to have decreased dramatically, supporting the notion that the architecture became a literal and figurative extension of the stela (Hansen 2007). The decrease in stone sculpture from heights of 4 to 5 m to monuments less than 1 m in height was a dramatic shift in social and political emphasis that is not well understood. One possibility is that this decrease in size may reflect a change in the means used to commemorate kingship. The size decrease is further accentuated by the fact that no monuments have been located in their original locations in front of major Late Preclassic structures in the Mirador Basin—locations where the Classic Maya would have placed monuments in great abundance. The possible exceptions are the mutilated Monument 21 located in a secondary context at the base of the triadic Cutz Complex in the Grand Plaza at El Mirador (Fig. 8.31) and a stela and altar at the western base of Danta Pyramid, although the dates of the placement of these monuments are uncertain.

The reduced size of the monuments also correlates with the introduction of hieroglyphic texts that were carefully incised in fine lines on the monuments and other portable objects during the Late Preclassic and Ter-



8.30. Map of the Danta Pyramid Complex at El Mirador, indicating the Quincunx pattern identified by R. Hansen on the first platform of the building (Map by DEPIC; Josephine Thompson, © FARES 2009).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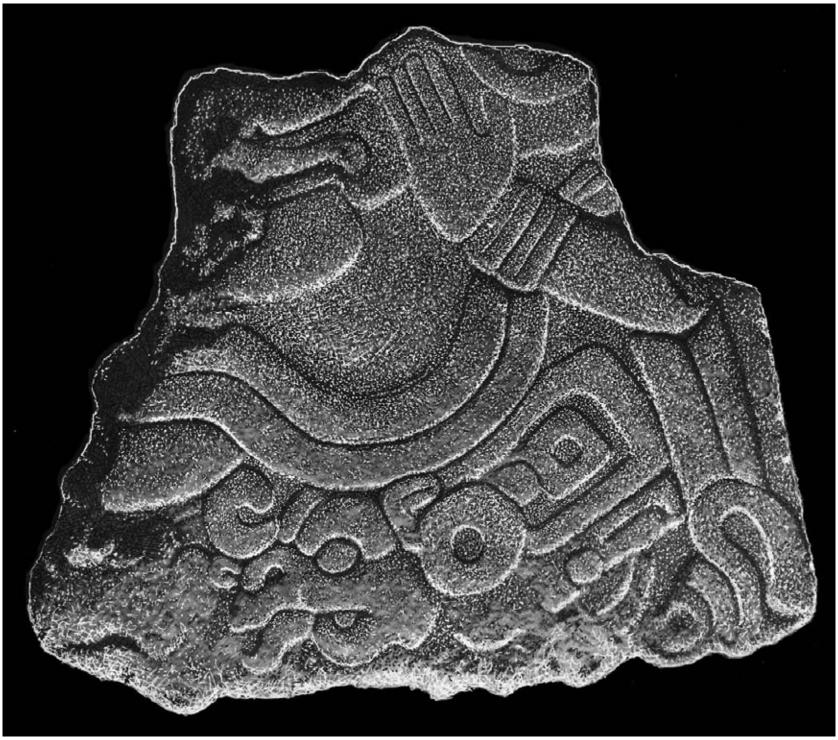


8.31. A fragment of the badly mutilated El Mirador Monument 21, located at the base of the triadic Cutz Complex in the Grand Plaza at the site (drawing by G. Valenzuela).

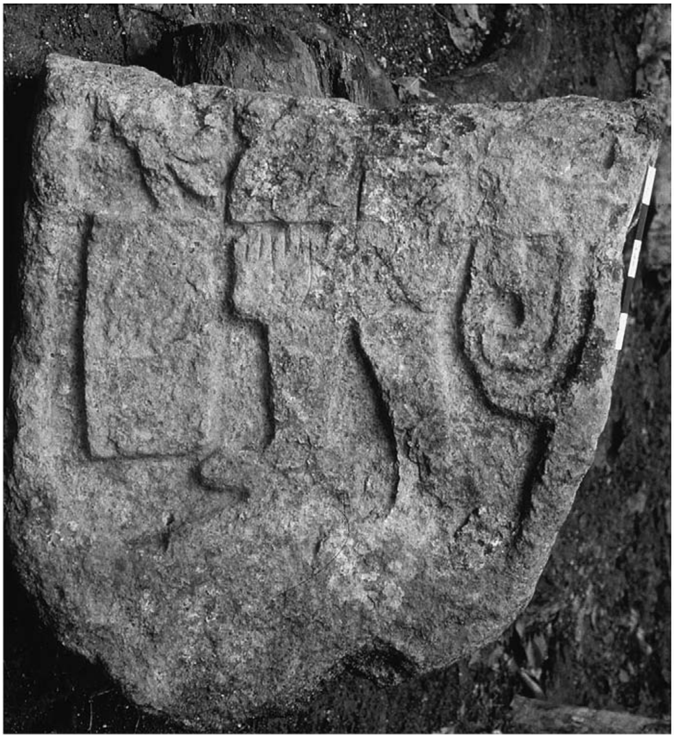
minal Preclassic periods (ca. 100 BCE–250 CE). El Mirador Stela 2 has one of the earliest incised hieroglyphic texts yet known from the Mirador Basin (Hansen 1991, 1995, 2001a). This consists of a band of incised glyphs with several phonetic elements still visible in the badly weathered and perhaps intentionally mutilated glyphs. Stela 1 from El Chiquero was, in its intact form, less than 90 cm in height, but a text panel, which had been carefully scraped off in antiquity, is located on the lower half of the monument (Fig. 8.32a, b). The badly weathered Monument 3 at Pedernal, located southeast of El Mirador, has two standing figures in elaborate royal dress, on each side of a glyph panel (Fig. 8.32c). This composition is similar to early sculptures in the southern Maya area, such as Takalik Abaj Stela 5, and the southern Peten on Polol Altar 1. The text had been almost entirely removed by the Maya, with the exception of a single glyph that was nestled in a slight cavity of the stone.

Small Terminal Preclassic (ca. 150–250 CE) monuments have been discovered by Nikolai Grube east of Naachtun at the site of La Toronja (Grube and Martin 2001:II–43) and in the Bajo de la Juventud near Tikal. The Hauberg Stela (Schele 1985; Guenter 2002) is of similar form and format and is believed to date as early as ca. 199 CE (Schele 1985) or slightly later in the Early Classic period (Guenter, pers. comm. 2004).

A hierarchal pattern in human burials is evident in the Mirador Basin during the Late Preclassic period. The small number of earlier burials is probably the result of archaeological sampling. Formal Middle Preclassic burials have been identified throughout the Maya lowlands, as at Cuello (Hammond 1977a, 1985a; Robin 1989) and in the Maya highlands, as at Los Mangales (Sharer and Sedat 1987:147). Middle Preclassic burials have also been recovered at Nakbe (Op. 32, Op. 52), but formal tomb constructions are still undetected. The Late Preclassic elite tombs recovered in the North Acropolis at Tikal (Coe and McGinn 1963; W. Coe 1965a, 1965b) are believed to represent early royalty. In the Mirador Basin, elaborate Late Preclassic tombs such as those in Wakna Structure 3 (Fig. 8.33) were placed in a triadic pattern, replicating the triadic format of the architecture (Hansen 1998:90–95).[12] An informant (the actual looter of the major tombs at Wakna) showed this author three burial chambers in Structure 3 with Late Preclassic pottery (Fig. 8.34) still *in situ*. According to the informant, a total of 23 pounds of jade (sold by the pound) had been extracted from the principal chamber in the central structure of the triadic platform (Hansen 1998:90–91).

The massive scale of Late Preclassic architecture found within the Mirador Basin leaves little doubt that political and economic power was highly centralized. The presence of carved monuments with portraits and texts, and the existence of large tombs within major structures, all point to the consolidation of power under the authority of individual rulers (Hansen 2012a; see also Martin, Chapter 12, this volume). Given the explicit depiction of a royal inauguration on the San Bartolo murals, it is clear that the Late Preclassic rulers of that site, together with those in the Mirador Basin and elsewhere, were ancestral versions of the Classic period sacred kings who held power at a series of capitals across the Maya lowlands.

The Late Preclassic kings of the El Mirador Basin oversaw the mobilization of labor in unprecedented numbers to construct and maintain a variety of public works designed to serve both the practical and esoteric needs



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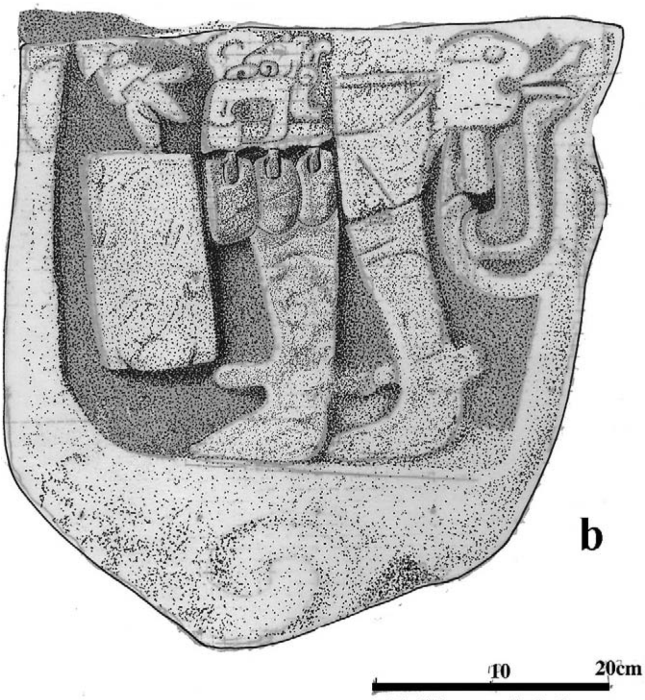
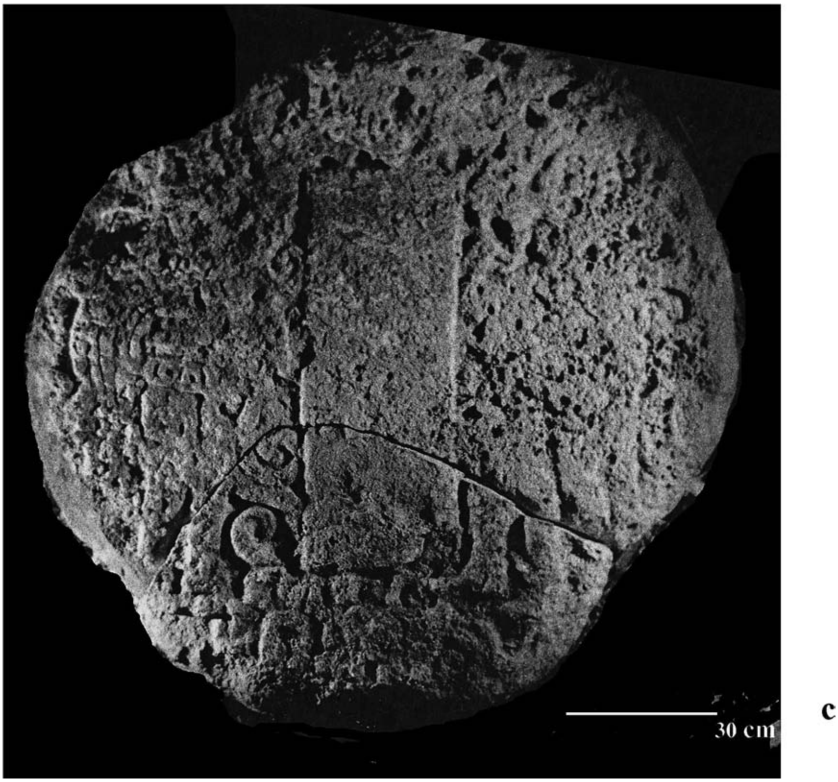


b

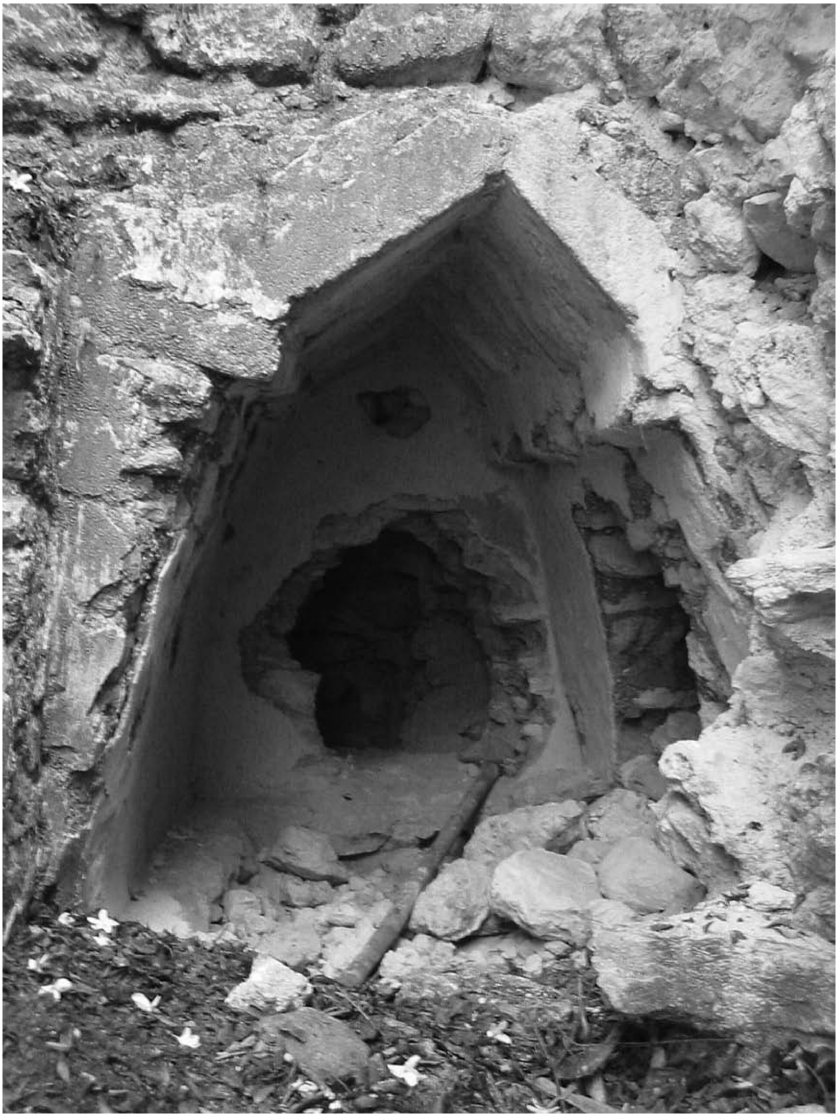
El Chiquero Stela 1
Drawn: E. Ortega, R. Hansen



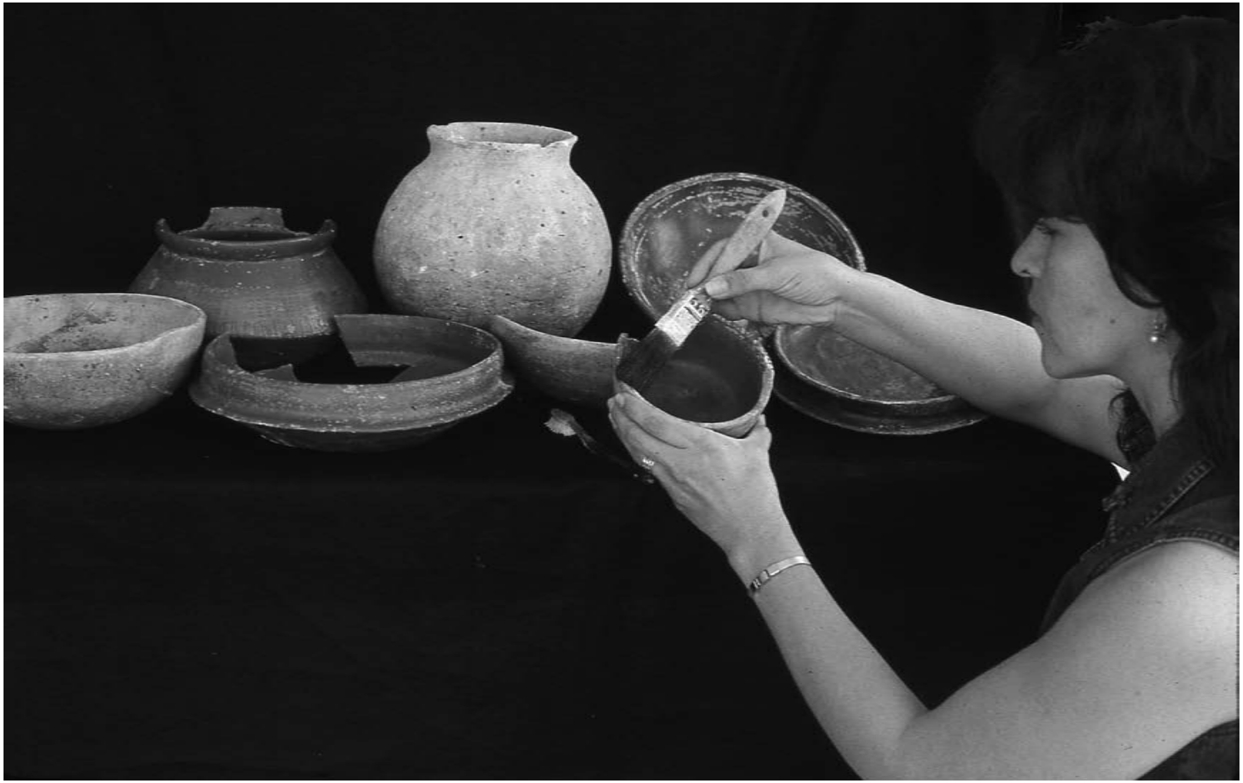
8.32. a, b) *facing page* El Chiquero Stela 1 from the Late Preclassic; c) *above* Pedernal Monument 3 from the Late Preclassic (Photo by C. Sherriff).

of their subjects. Calculations of the energetics of construction programs based on extensive experiments conducted by the Mirador Basin Project have determined that as many as five million man-days of labor were needed to construct the Tigre Complex (Hansen 1990), and ten to twelve million man-days of labor were needed to construct the massive Danta Pyramid (both at El Mirador), depending on quarry locations.[13]

Plazas, like that immediately west of the Leon Pyramid (the massive E-Group building in El Mirador's Central Group), were designed as catchment systems for water collection and management in artificial reservoirs at the site. A system of reservoirs in the Grand Central Acropolis at El Mirador was constructed to collect water from adjacent plastered buildings. The sophisticated sluice and pool systems of these reservoirs were enhanced with finely modeled stucco decorations just above the water line. Depicting



8.33. Tomb 1 of Wakna, which had been looted prior to 1990, when an informant took the author to see the site. Preclassic ceramics were still in the chamber when it was found, but, according to the informant, the jade artifacts had been removed and sold. Note the structural similarities of the vault construction to a Cimi phase tomb in Structure 5D-86 at Tikal and a tunnel in Structure J at Monte Alban (Hansen 1998: 95) (Photo by H. Mejia).



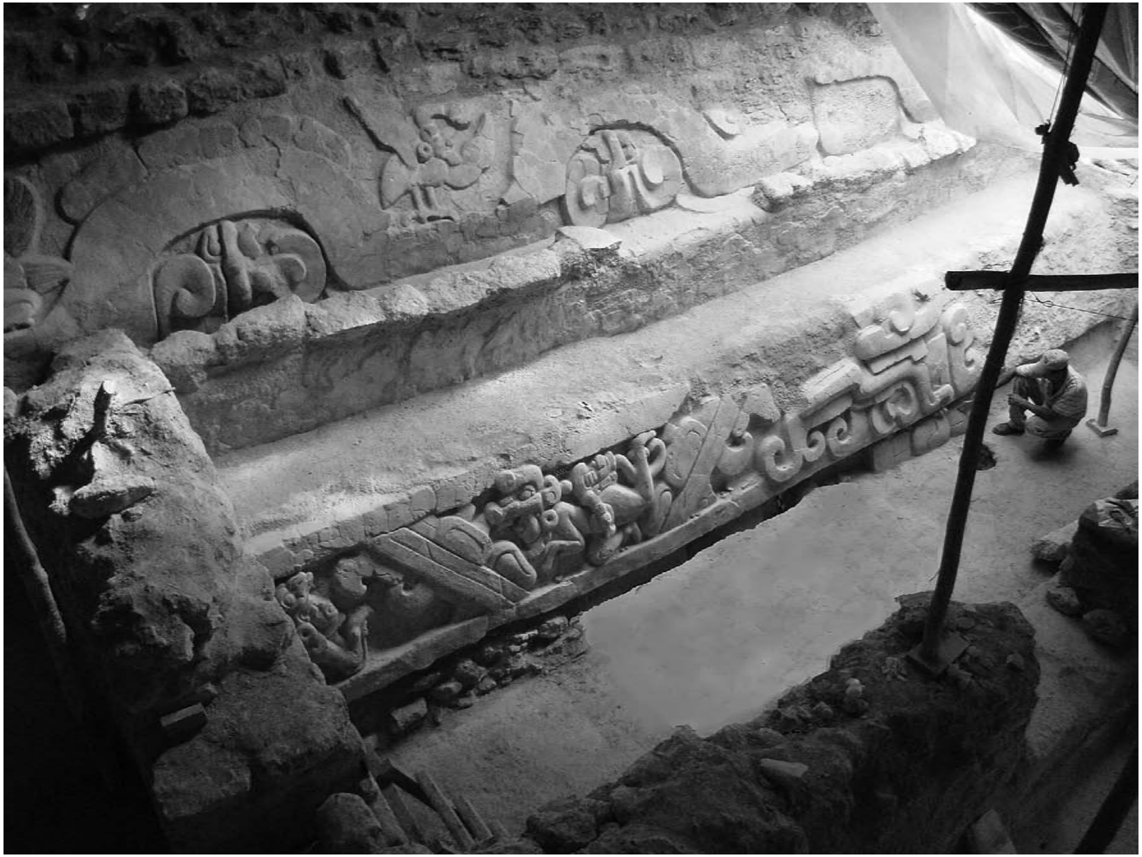
8.34. Arranging ceramics fit for a king, Guatemalan archaeologist Beatriz Balcarcel prepares the vessels that were recovered from the looted Late Preclassic tombs at Wakna for photography (Photo by R.D. Hansen).

nearly the entire pantheon of Maya cosmology, these decorations include several variant images of Itzamná in avian form, an undulating feathered serpent with aquatic references, aquatic elements, repeated images of the rain deity Chak, and what appears to be the Hero Twins of the Popol Vuh, with one transporting a decapitated head. Such rich iconographic details, lining Preclassic sunken plazas and reservoirs, are a testament to an overarching sophistication governed by (and governing) a broad ideological base (Fig. 8.35; Argyle 2010; Argyle and Hansen 2010, 2016; Hansen n.d.).

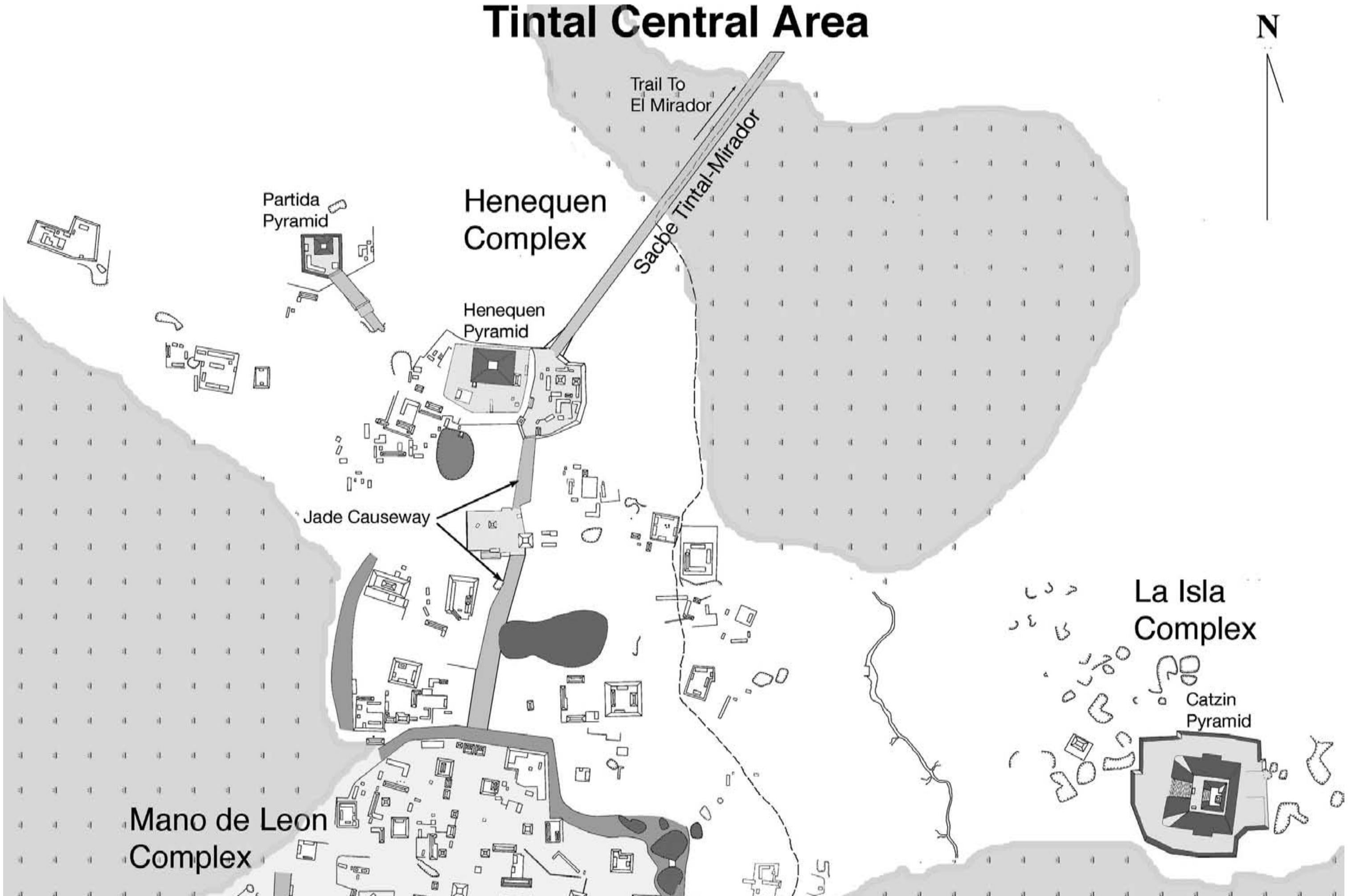
A massive defensive wall, now about 8 m high in its ruined state, was erected along three sides of the central area of El Mirador, with the fourth side framed by a 30 m escarpment (Medina 2012; see Fig. 8.6). A defensive 15 m deep moat system recently has been discovered to the east of Danta Pyramid at El Mirador. In addition, a major moat system has been discovered at the sites of Xulnal and Tintal surrounding a large portion of the civic centers of the sites (Fig. 8.36). These wall and moat systems suggest the need for restricted areas, most likely defensive constructions, to protect the cities and their occupants from an external but undetermined threat.

While first constructed in the Middle Preclassic, the extensive causeways linking the major sites within the Basin were renewed and expanded during the Late Preclassic period. Satellite cities such as La Ceibita, located to the south of Tintal, were connected by causeways to the larger centers, and even smaller peripheral communities were connected by causeways to the satellite cities. This network is a testament to inter-site and intra-site interaction that enabled commerce, trade, tribute, food distribution, military support, and communication to flourish during the Late Preclassic period. Reflecting this interaction, neutron activation analyses of Preclassic and Classic ceramics from numerous sites within the Basin by Ron Bishop and Dorie Reents-Budet are beginning to show intense interaction and ceramic exchange within the Basin (Bishop, pers. comm. 2011; Reents-Budet et al. 2011).

The evidence for Late Preclassic complexity and centralization of authority, apparent from long-term archaeological research in the Mirador Basin, is replicated, albeit on a smaller scale, at a number of other sites in the Maya lowlands. This evidence forms the backdrop for, and is symptomatic of, what has been previously dubbed the "Chicanel State" (Hansen 1982, 1984, 1990), referring to the widespread, uniform ceramic sphere that extended throughout the lowlands during the Late Preclassic period (see Forsyth 1989, 1992,1993a, 1993b). The uniformity of the Late Preclassic



8.35. Frieze decorating what was originally a sunken plaza and subsequently renovated as a series of pools and water collection reservoirs with rich iconographic images, depicting important elements of Maya cosmology (Photo by R.D. Hansen, ©FARES 2010).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El Mirador
Sacbe Tintal-Mirador
Partida
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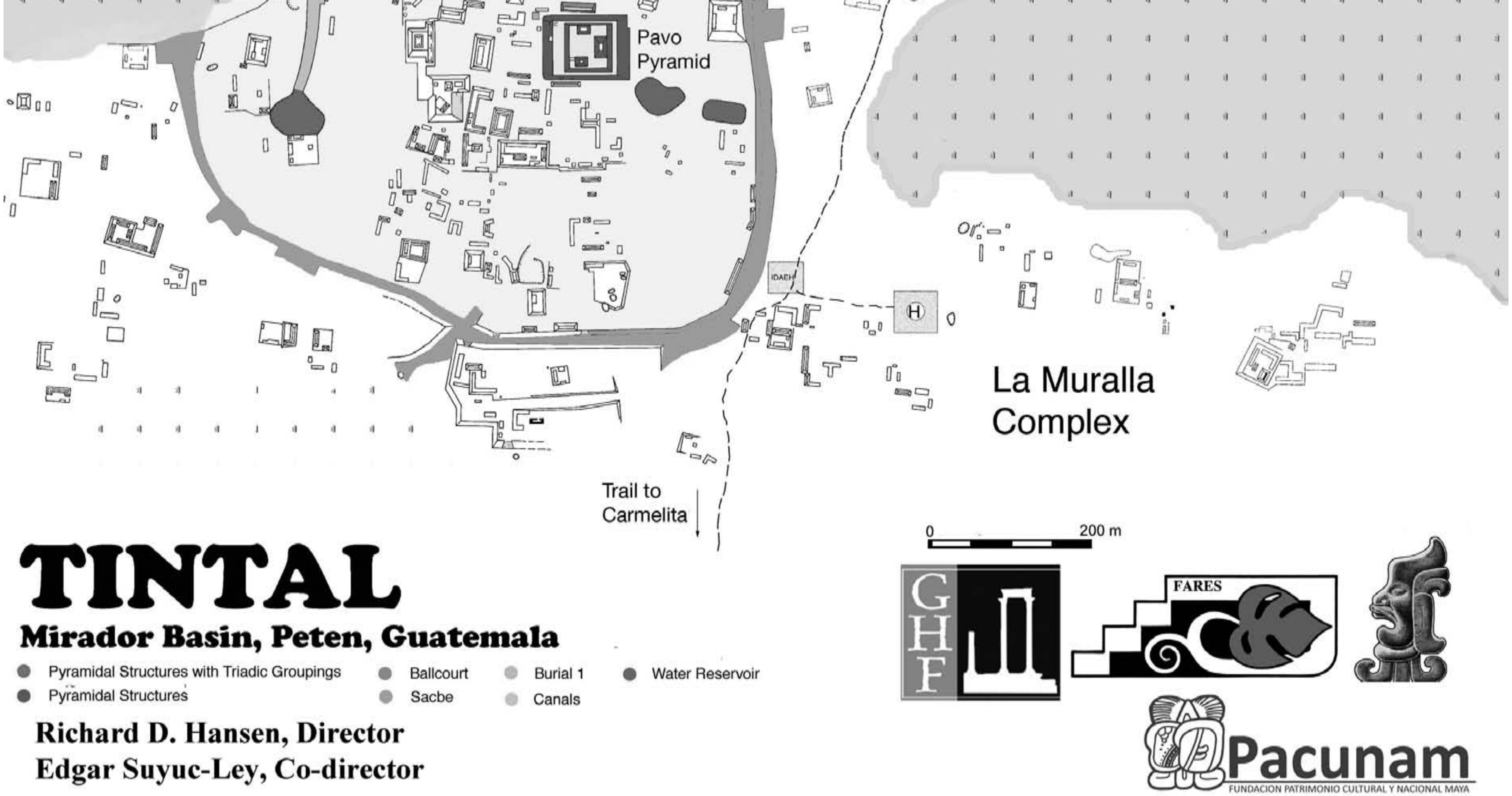
Catzin
Pyramid
Mano de Leon
Complex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● Pyramidal Structures
● Ballcourt
● Sacbe
● Burial 1
● Canals
● Water Reservoir
Richard D. Hansen, Director
Edgar Suyuc-Ley, Co-director
GHF
FARES
Pacunam
FUNDACION PATRIMONIO CULTURAL Y NACIONAL MAYA

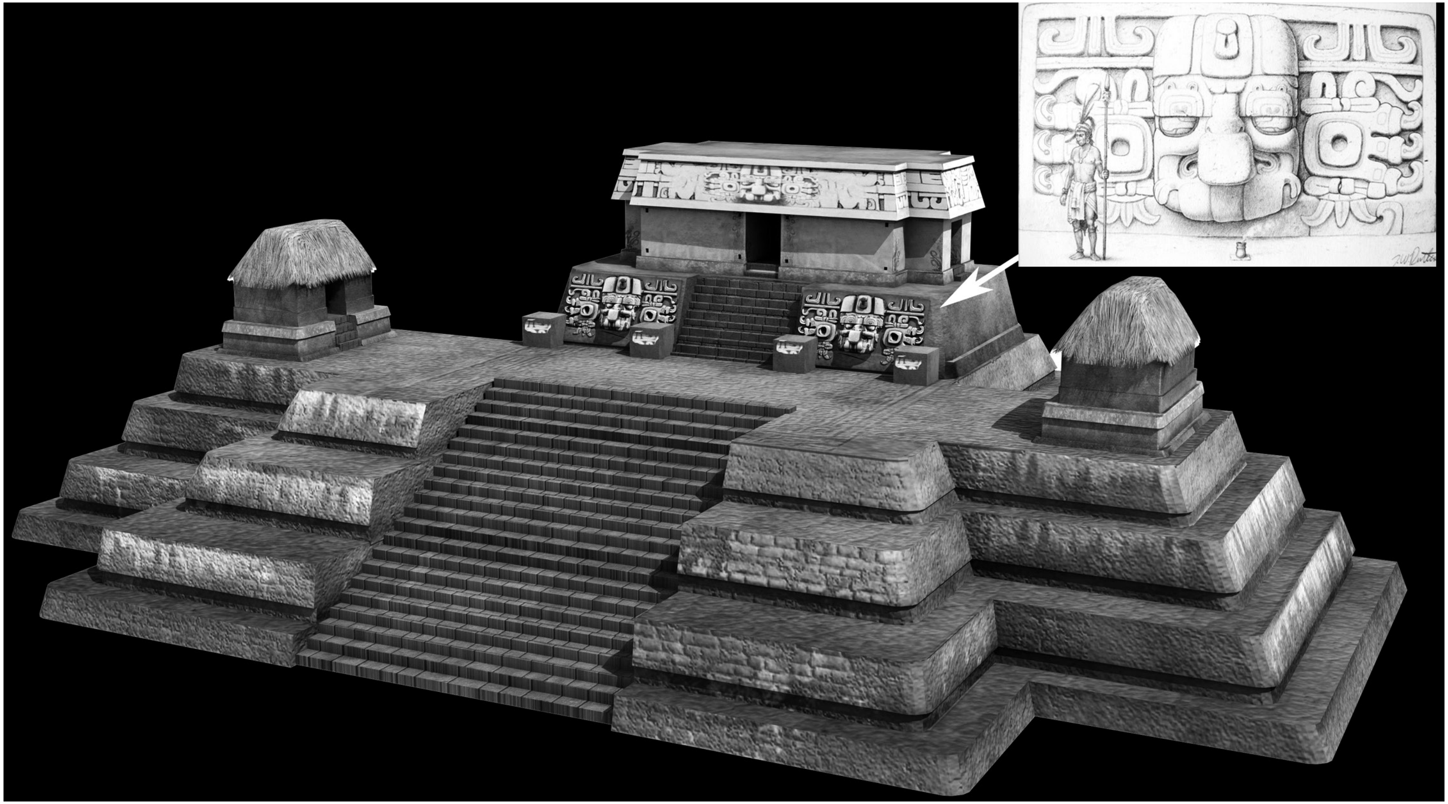
8.36. Map of a portion of the civic center of Tintal, Mirador Basin (Map by H. Mejia, E. Hernandez, J. Thompson, ©FARES 2011).

Chicanel Ceramic Sphere was never matched in any previous or subsequent periods of Maya history, and the implications are that a state mechanism provided the impetus and social, political, and economic vehicles in ceramic exchange extending over the entire Maya area from the tip of the Yucatan Peninsula to Honduras.

Preclassic Sacred Kings

As already mentioned, the evidence also points to the presence of kingship as the ultimate authority within this sophisticated Middle and Late Preclassic socio-political development (R. Hansen 2000, 2001a, 2012a). But the identification of the specific protagonists behind this system has been more elusive than the infrastructure they created. Perhaps one of the most promising avenues has been the insightful research by Simon Martin (1997; Grube and Martin 2001) and Stanley Guenter (2004, 2007, n.d.) on the 17 known codex-style vases painted in the Late Classic period between ca. 670 and 740 CE. These vessels, now in private collections, present what appears to be a retrospective dynastic history (Martin 1997:862; Guenter 2004, 2007) of a series of rulers of the Kan or "Snake" Kingdom. While some of the 17 vessels present only portions of the dynastic sequence, each documents a consistent series of rulers' names and dates of accession, even though recorded by different scribes. There are no known Classic period rulers that correlate with the sequential listings and the *tzolkin* and *haab* dates recorded on the codex-style vases (Martin 1997:862). The range of recorded dynastic accessions of kingship proposed by Guenter is compatible with the archaeological evidence, with dynastic accessions occurring between about 400 BCE and 20 CE (Guenter 2004, 2007, n.d.), precisely corresponding to the apogee of the proposed state within the Mirador Basin. Current research also suggests possible correlations with rulers on the codex-style vases. For example, Ruler 13 of the accession sequence, identified as Yuknoom Yich'ak'kak, who acceded to the throne on 8 Kaban 5 Xul, may be represented on the jaguar paw stucco panels on Structure 34 at El Mirador (Fig. 8.37). Guenter's proposed dates for this Late Preclassic ruler are consistent with both the ceramic and C-14 data (Beta 1965) of Structure 34 (see Hansen 1984, 1990).

Assuming the codex-style vessels record retrospective history, 2 of the 19 recorded dynastic protagonists were afforded the Kaloom'te title (Ruler 2 and Ruler 19, see Kerr #K6751; Martin 1997:846; Guenter n.d.), the highest



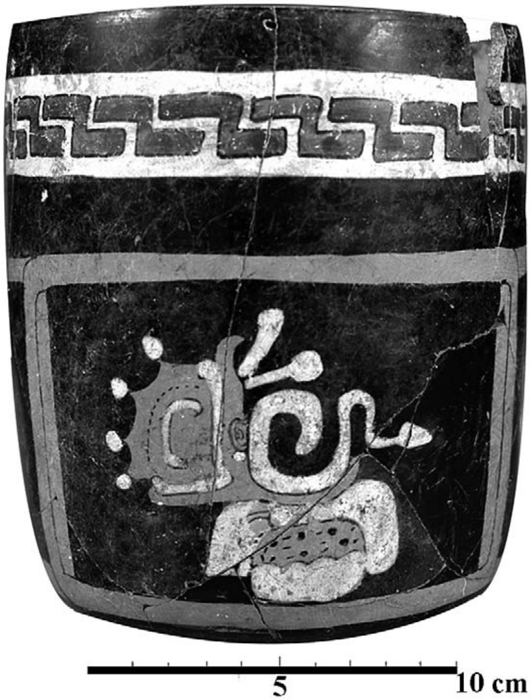
8.37. Reconstruction drawing of El Mirador Structure 34, also known as the Jaguar Paw Temple (Drawing by Studio C, Guatemala; Courtesy of Fernando Paiz and T.W. Rutledge).

title afforded any Maya king (Martin and Grube 2000:17). The Kaloom'te title appears to have been reserved for paramount kings or "conquerors," and the juxtaposition of the accession of these individuals with evidence of social upheavals at La Venta and the Gulf coast region may be more than coincidence. The last recorded king of the dynastic sequence appears to have been depicted on El Mirador Monument 18 as a downward peering ancestor figure (Guenter n.d., 2004; Chambers and Hansen 1996). He is also possibly retrospectively depicted on a Late Classic vase found in a burial under the summit floor of Structure 104 in the Codex Group at Nakbe (Hansen 2001b; Fig. 8.38).

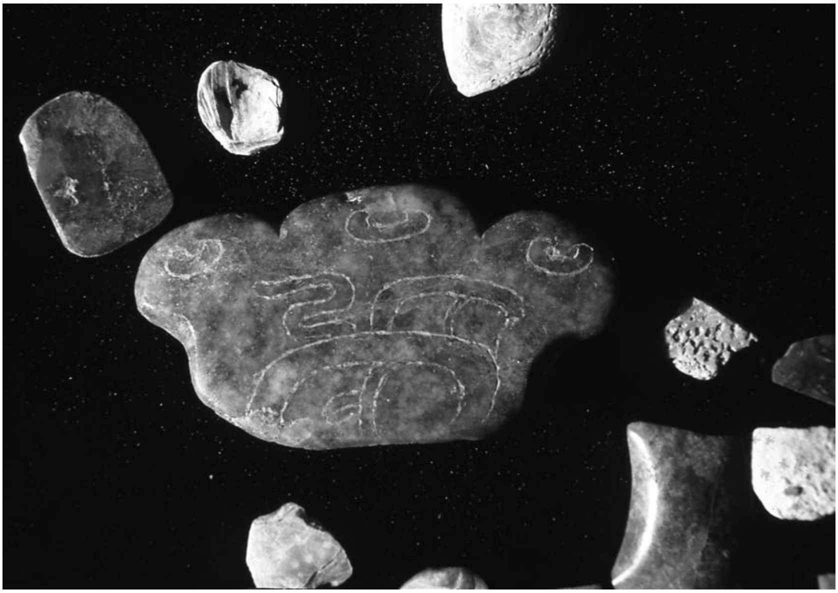
The Mirador Basin and the Kan Polity

An elite burial located at the base of Tintal Stela 1 (ca. 300–400 CE) contained a mosaic jade mask with the largest fragment consisting of a highly polished trilobed jade, marked with an incised glyph and three U-shaped elements on the upper lobes (Hansen et al. 2006; Fig. 8.39). The incised glyph is an early version of T516, phonetically read as *ajaw*. The small serpent, which can be read as *kan*, located on the upper prefix of the glyph has been noted by Guenter, Grube, and Martin to be on the Hauberg Stela (glyph B-2; Fig. 8.40a), and on Tikal Stela 5 as a regal title for the mother of the great Yik'in Chan K'awiil (glyph D-9; Fig. 8.40b), suggesting that the Late Classic ruler of Tikal, Jasaw Chan K'awiil, took a wife from a site within the ancestral Snake (Kan or Kaan) Kingdom (Hansen, Howell et al. 2008).

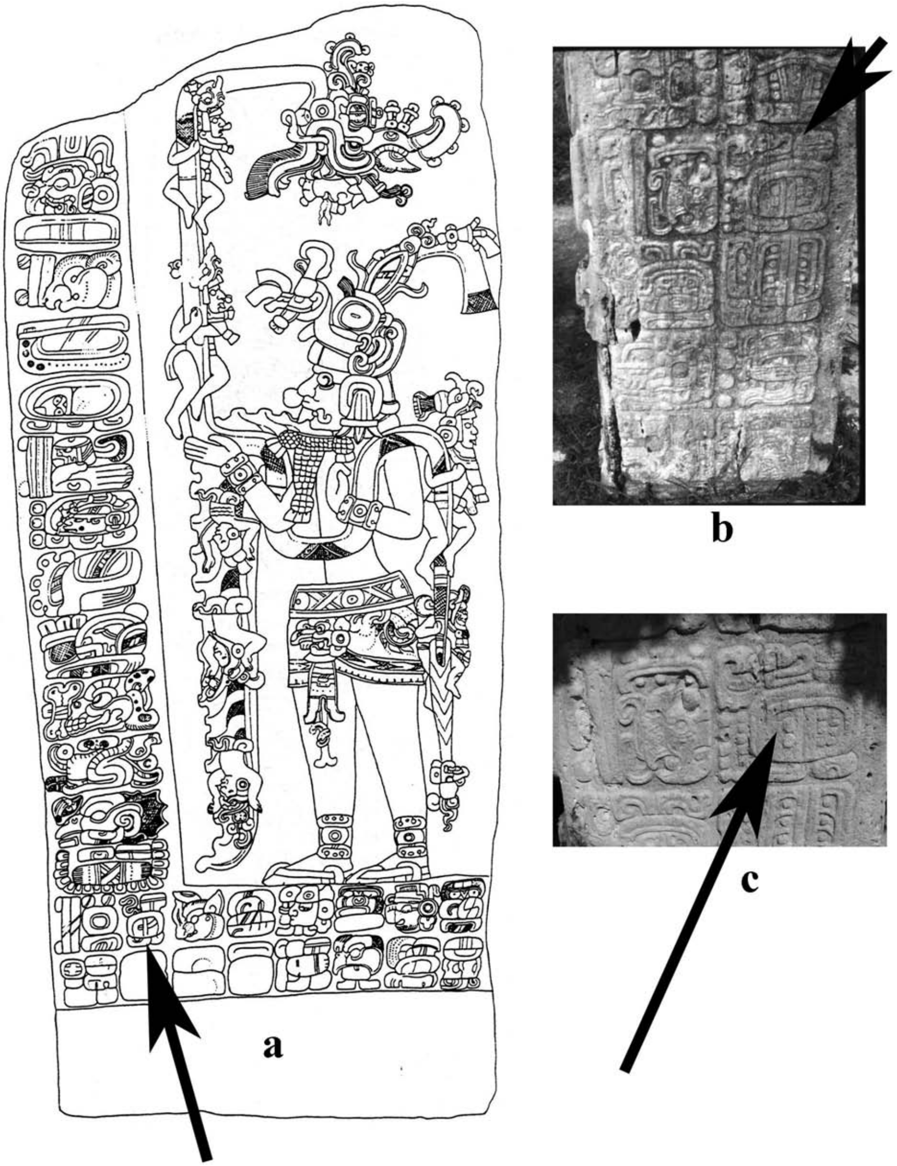
An indication that the Mirador Basin was indeed the ancient site of the great Kan state was found in 2003 on 6 x 5 m bedrock carving excavated by project co-director Edgar Suyuc-Ley at La Muerta, a southern suburb of El Mirador. Suyuc-Ley's discovery revealed a medium relief sculpture of a series of superimposed profile deity heads carved in the bedrock (Fig. 8.41). In addition to extensive natural weathering, it appears that some of the carving had been intentionally mutilated long ago. The carved profile deity heads are oriented to the north, towards the center of El Mirador and towards a series of six glyphs in a vertical column. The glyphs are badly weathered, but sufficient details remain to allow tentative identification. The first glyph is part of a *tzolkin* date, with the number severely eroded. Photos and analyses with various lighting angles suggest that the glyph is most likely a *chicchan* day name, followed by two additional glyphs that are not understood, but must be a verbal phrase. These are followed by



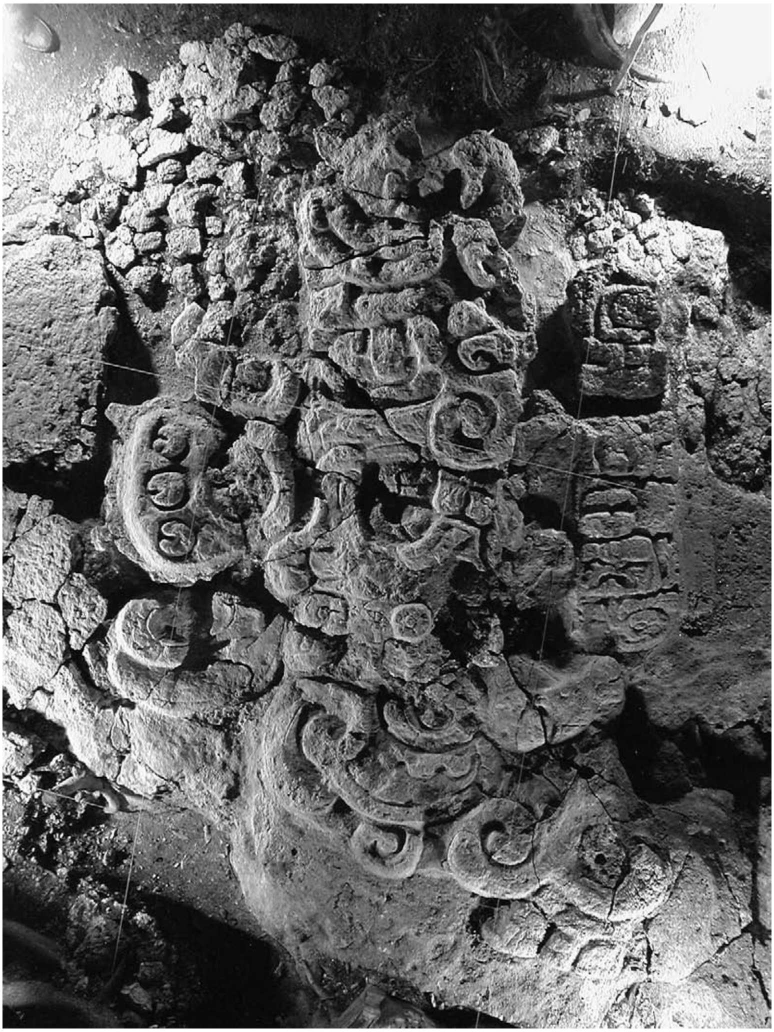
8.38. Vase recovered from a burial in the summit of Structure 104 in the Codex Group at Nakbe. The image, an open-mouth serpent on a jaguar-skin throne, has similarities to the name of the 19th ruler of the dynastic sequence recorded on codex style vases (Photo by F.R. Hillman).



8.39. Large tri-lobed, polished jade from a burial at the base of Tintal Stela 1, with a T516 *ajaw* glyph incised on the face. Note the serpent figure (*kan*) on the upper left of the glyph block. Width of jade is 6.62 cm (Photo by R.D. Hansen).

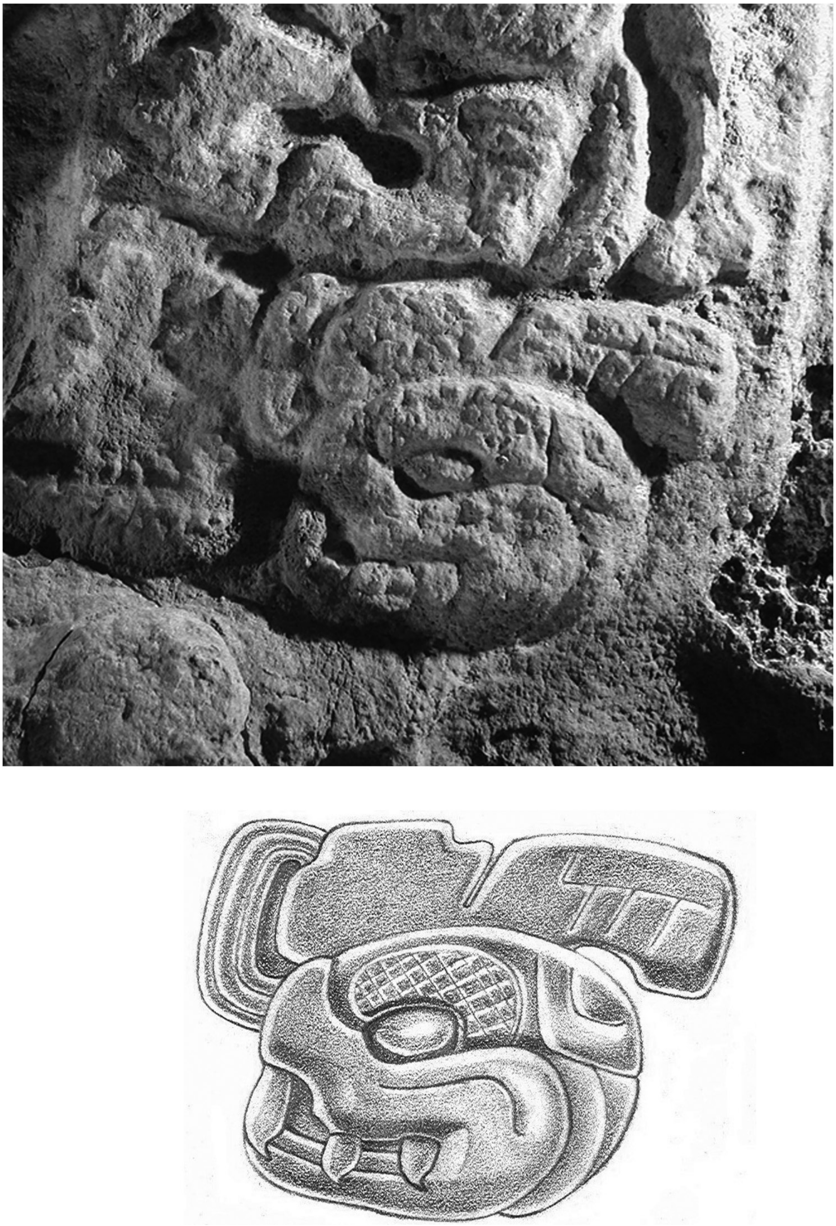


8.40. a) the Hauberg Stela showing the *kan-ajaw* (Snake-Lord) glyph (after drawing by L. Schele (Schele 1985); b,c) East face of Tikal Stela 5, noting that the mother of the Late Classic ruler Yik'in Chan K'awiil of Tikal was a *kan ajaw*, a woman from a site somewhere in the *Kan* polity (*Yokman*) that married Hasaw Chan K'awiil (Photo by R.D. Hansen).



8.41. La Muerta Monument 1, a bedrock carving (6 x 5 m) in a southern suburb of El Mirador, dating to the Terminal Preclassic-Early Classic periods (Photo by R.D. Hansen).

two more glyphs forming what is believed to be a nominal phrase. The final glyph is the distinctive snake or *kan* glyph with the *ajaw* prefix (see Hansen, Suyuc-Ley et al. 2008:58; Fig. 8.42). This evidence, combined with the Tintal jade glyph, suggests that the Mirador Basin was home to the original Kan site, birthplace of the Maize God, and perhaps the original



8.42. Lower glyph on the bedrock panel of La Muerta Monument 1, showing the *k'ujul kan ajaw* title (Photo by R.D. Hansen ©FARES 2003; Drawing by E. Ortega).

Tamoanchan site, the ancestral reference for generations of subsequent Maya societies (Hansen and Guenter 2005; Guenter 2005, 2007; Hansen, Suyuc-Ley et al. 2008:61–62).[14]

The Kan lords had apparently achieved an immortality worthy of being recorded in retrospective histories on Late Classic pots and carved in stone, and leaving, as a testament to their administrative prowess, the jungle-shrouded architecture of the great ancestral cities of the Basin. It was this legacy that encouraged the kings of great Maya cities within the Basin, such as Calakmul, and at Dzibanche in Quintana Roo, to be explicitly identified with the Kan Kingdom. Maya kings of Calakmul even assumed some of the ancestral royal names recorded on the codex-style vessels, a practice also observed at Tikal and Yaxchilan.

CONCLUSION

The Mirador Basin data suggest that Maya kingship was a process closely linked with the economic capabilities of the region, with control of a large and ample labor force, and ideological incentives (religious. political, economic) that persuaded and coerced the masses to accommodate royal institutions and bureaucracy (Hansen 1992a, 2000, 2012a). If our conclusions are correct, by the late Middle Preclassic period the rulers of small state systems emerged in the Mirador Basin and embarked on the formation of perhaps the first expansive state in the Maya lowlands, the Kan Kingdom, with its presumed capital at Nakbe or El Mirador. By the early Late Preclassic period, however, the development of the state saw its apogee and El Mirador emerged as the major polity in terms of size and central position. From their beginnings, the centralized and cohesive nature of the earliest polities was characterized by the construction of causeways, which linked the major and minor cities of the Basin into a common economic and political alliance, with satellite communities joined to both major and minor sites. This precocious formation made possible the construction of the largest platforms, palaces, and pyramidal structures in most of the major sites in the Mirador Basin, and allowed the growth of the cities to be among the largest in the Maya world, centuries before the time of Christ.

The monuments and constructions of the Mirador Basin are the silent witnesses of a unique saga of human history, beginning in the early Middle Preclassic period and reaching a peak of development until a dramatic, demographic decline occurred at the end of the Late Preclassic period (Hansen 1984, 1990, 1992a, 2001a; Hansen, Howell et al. 2008; Hansen 2012b; Balcarcel et al. 2010). It is now apparent that the Preclassic kings of the Mirador Basin ruled over the first and most powerful states in the Maya lowlands. In the process, they created an architectural environment unrivaled in the Maya lowlands at any period of time.

Although there were likely subsequent rulers at various periods in the Mirador Basin, the entire area appears to have suffered large-scale depopulation by about 150 CE. This finding is corroborated by the pollen data that records the disappearance of maize pollen and agricultural weeds and the return of tropical forest species, also evident in the isotope signatures of the flora (Hansen et al. 2002). These detailed data, which are consistent from several sources along the western edge of the Mirador Basin, suggest the reality of this depopulation event chronologically, biologically, and culturally (Wahl 2005a; Wahl et al. 2005; Wahl et al. 2006, Wahl, Byrne et al. 2007; Hansen 2012b). As the tropical forest returned to cover the great Preclassic structures, a later modest and dispersed population returned in the Late and Terminal Classic periods, particularly in sites in the southern part of the Basin, residing in modest structures among the ruins of the former splendor (Hansen 1996, 2001b). The northern part of the Basin, however, erupted again in a formidable display of power with the emergence of Dzibanche and, ultimately, Calakmul as an expansive state system that dominated much of the political, economic, and social scenarios of the Late Classic Maya lowlands.

After the fall of the Preclassic states throughout the Maya lowlands, it appears that the ruins of the great cities of the Mirador Basin were the object of pilgrimages for centuries thereafter. This is indicated by the presence of Classic era incense burners on the summit of the largest pyramids, as well as several examples of Postclassic ceramics and figurines on structures or in burials (Hansen, Howell et al. 2008). Recent excavations at the site of Naachtun have demonstrated a strong Early Classic and Terminal Classic presence at the site, suggesting that perhaps some of the occupants from the interior of the Basin had migrated to Naachtun (Nondedeo et al. 2012). The floresence at Dzibanche in the Early Classic period and, subsequently, at Calakmul, which became a dominant state during the Late Classic period, is likely reflective of the polity that existed centuries earlier farther south in the same cultural and environmental system. It is noteworthy, however, that the name of Calakmul was not *Kan* or *Kaan*, but rather *Ox te'tuun* or *Chiik Naab* (Martin and Grube 2000:104). It is likely that the Kan title was a reference to the Preclassic polity that had provided the legacy and legitimacy for the Basin rulers at Calakmul.

Meanwhile, the occupants of many of the abandoned Preclassic sites during the Late Classic period included artists and scribes, living in modest structures, who produced the unique codex-style ceramics (Robicsek and Hales 1981; Hansen et al. 1991; Hansen, Howell et al. 2008; Reents-Budet et al. 2011) that they exported to other sites within the Basin such as Calakmul (Reents-Budet et al. 2011). Neutron activation analysis of these materials and comparison with more than 36,000 other samples show that codex-style ceramics are unique in composition and restricted in manufacture to the Mirador Basin (Reents-Budet et al. 2011). They present detailed supernatural and mythological scenes in finely painted lines on bowls, plates, and vases. But they also record a fascinating sequence of kings believed to be the dynasty of the Preclassic Kan rulers, who once presided over the first state-level polity in the Maya lowlands. This legacy, both of the rulers and the ruled, and the associated cultural and natural dynamics of statehood and kingship formed the primordial foundation for the first Maya states.

ENDNOTES

8.1. A maize pollen (*Zea mays*) grain, recovered from a sealed lake deposit (Puerto Arturo) was associated with sediments between two AMS carbon dates of 3320 and 1279 BCE (calibrated). The sample has an estimated calibrated date of 4650 BP (2700 BCE) according to the fine-grained stratigraphic sequence, suggesting that an early corn-growing occupation may have occurred somewhere in the Basin (Wahl 2005). We now have additional evidence for an early agricultural presence in three of the small lakes along the western edge of the Basin, where AMS dates show a consistent presence of *Zea mays* and agricultural weeds by 2600 BCE (Wahl et al. 2006, 2007; Wahl et al. 2014; Wahl et al. 2015). Deep deposits under early Middle Preclassic platforms at Nakbe have revealed post holes, and stone debitage that date to approximately the same period.

8.2. The distribution of early Middle Preclassic settlements may have been severely distorted by subsequent quarrying activity over vast portions of Nakbe, particularly to the south of the East Group and areas between the East and West Groups. I conclude, based on the size and distribution of monumental architecture at Nakbe, and test excavations throughout the peripheral areas, that Middle Preclassic residences and platforms covered the entire site. A similar situation probably occurred in the Cascabel and Sacalero areas of El Mirador, now known to date to the Middle Preclassic periods. Further sampling at more distant locations from the site center should resolve this issue.

8.3. The presence of cortex on recovered obsidian waste flakes and core shatter indicates that some San Martin Jilotepeque obsidian was transported into Nakbe and El Mirador in raw nodule form, and there is ample evidence of early-stage reduction debitage. Other possible cortex sources may have been on the distal ends of cores and possibly large imported flakes, but evidence suggests that obsidian was transported with cortex and initially worked at the sites into prismatic blades. Chemical analyses by Ray Kunselman of 85 samples of Middle Preclassic obsidian blades and flakes from sealed contexts show a strong concentration (66%) of Middle Preclassic obsidian from San Martin Jilotepeque, with 32% from El Chayal, and 1% from Ixtepeque (Kunselman 2000). Percentages may change with the pending analyses of more obsidian fragments from Middle Preclassic contexts at Nakbe and El Mirador, but comparisons with other sites suggest that SMJ percentages are likely to increase.

8.4. At Nakbe, El Mirador, El Pesquero, Xulnal, and other sites in the Mirador Basin, the late Middle Preclassic period is characterized by large bowls with extremely wide everted rims (up to 10 cm wide) and waxy monochrome slips. In addition, slightly inverted-rim bowls with incised exteriors suggest a standardization of vessel forms, slips, and manufacturing modes. Woven mat motifs continue to be incised on vessel exteriors, indicating an enduring presence of the symbols of royalty.

8.5. Similar economic and social parallels can be observed in U.S. history. When the transcontinental railroad was completed in 1869, it served as a major stimulus in the economic and social integration of the country. Today, the rail system and the interstate freeway systems allow for social and economic interaction across the entire country.

8.6. The greatest percentage of monuments identified in the Basin are uncarved stones that appear to have been relocated from their original settings by Late Classic populations and reset, often near elite residences as a form of stela cult. Many of the stones are in a deteriorated state, without detectable carved or incised designs, since they frequently are still standing and exposed to the elements. It is also possible that many were originally covered with a lime plaster. These monuments are found along causeways (Nakbe Stela 12), near residential constructions (Nakbe Mons. 5, 6, 7, Stelae 10, 11), near major architecture (Nakbe Mon. 8, Stela 9; El Mirador Stela 19, Altar 20, Mon. 21), and even incorporated into architecture (El Mirador Mons. 5–11; La Florida Stela 1). They are also placed directly on platforms of buildings (Pedernal Stela 1, Altar 6). In some cases, stelae were placed without architectural associations (La Muerta Stela 2). Fragments of carved monuments are often found in rubble or along collapsed walls (El Mirador Stela 12), or were recovered from looters' camps (Zacatal Mon. 2).

8.7. Monuments at Pedernal, Tintal, and Nakbe were associated with smashed Late Classic ceramics consisting of drums, plates, bowls, and restricted orifice, liquid storage vessels (Chinja Impressed). Tintal Stela 1 was associated with incensarios and evidence of incense burning. Nakbe Monuments 2 and 3 were set inside Structure 52 where copal incense was found and bloodletting appears to have occurred (Hansen 1992a).

8.8. A series of Preclassic sculptures from coastal Chiapas had edges carved with both realistic and abstract figures (see Lee 1990). In like manner, San Jose Mogote Monument 3 had carving that extended over the side of the stone (Marcus and Flannery 1996:129).

8.9. Chemical and compositional analyses and subsequent comparisons with other red sandstone sources in the Maya area revealed that the stone for Tintal Stela 1 came from the lower Pasión and upper Usumacinta areas (Schreiner 1992). It appears that the sandstone slab weighing over 6.42 metric tons (Sidrys 1978:174), for which additional fragments have now been identified, came from the Altar de Sacrificios region, approximately 110 km away, 150 km by riverine routes. Its date of transport is uncertain, but it was most likely moved into the Mirador Basin during the Middle Preclassic and subsequently discovered, venerated, and ultimately mutilated during the Late Classic. The monument was recarved from an earlier sculpture, a practice known in Middle Preclassic times throughout Mesoamerica (e.g., Cyphers 1994).

8.10. The appearance of Olmec-style artifacts has been noted at a variety of sites, although evidence that these artifacts originated in the Olmec heartland is becoming increasingly evident (Blomster et al. 2005). At Mazatán, Chiapas, Clark noted the abrupt change in human figurine forms from the Ocos local style to the deformed crania of "Olmec" figurines (Clark 1990:51). Similarly, Richard Lesure found that the Soconusco region of Chiapas and Guatemala had a rapid decline in realistic ceramic animal effigies, thought to be associated with local traditions about 1000 BCE, while representations of stylized mythical creatures and symbols became common on incised vessels associated with the Olmec art (Lesure 2000, 2004). Changes in ceramics (from red serving wares to black or white wares) in Pacific coast societies have been correlated with emulation and/or contact with the Gulf coast Olmec (Clark and Pye 2000b:234). Architecturally, structural patterns and spatial organization of sites potentially accessible to direct Olmec occupation follow the north-south axis orientation of Olmec sites, as evident for examples at Finca Acapulco (Lowe 1977:285), San Isidro (Lowe 1989b), La Libertad (Lowe 1989b:382), and La Venta (see González Lauck 1996:74). These transformations may corroborate arguments that Olmec influence pervaded the Soconusco sometime around 1000 BCE, and coincided with shifts in social, political, and economic organizations.

A second visible shift is ostensibly between 900 and 600 BCE in which an Olmec presence is suggested by the appearance by small portable objects such as figurines, plaques, and jade celts. The viable trade and transportation routes along the Pacific coast made participation easier for the coastal societies in the broader interactions with the Olmec (Clark and Pye 2000b), yet the widespread availability of such objects from trade complicates their significance as evidence for Olmec influence or presence.

8.11. The result of examination of the San Bartolo ceramics by Donald Forsyth and this author concurs with Saturno's dating of the murals. The fill that covered the murals cannot be much earlier than 100 BCE or later than about the time of Christ. This suggests either that Nakbe Stela 1 is later than the late Middle Preclassic–early Late Preclassic period, or Preclassic iconographic depictions of figures like those in the murals remained fairly constant over several hundred years, as attested by studies of Olmec Maize God images on celts and other portable objects (Taube 1996a). I prefer the latter position because of the radical architectural, demographic, and iconographic changes in the Maya lowlands during the latter part of the Late Preclassic period. For example, text panels are not found on large late Middle Preclassic–early Late Preclassic stelae in the lowlands. Texts appear later, but only on monuments of extremely reduced size, characteristic of Terminal Preclassic sculpture.

8.12. Extensive excavations on Nakbe Structure 13, similar in size and shape to Wakna Structure 3, failed to locate burials in the same locations as those found at Wakna. Patterns of Late Preclassic royal burials are still enigmatic.

8.13. Recent mapping of the Danta Complex provided the first accurate map of the massive structure. Calculations of volumetric comparisons were based on the extensive experimental programs enacted by the Mirador Basin-RAINPEG project.

8.14. The Mirador Basin is also a candidate for being the legendary Tamoanchan place (Hansen, Howell et al. 2008). Tamoanchan was the mythological birthplace of political dynasties throughout all of Mesoamerica. "Tamoanchan" is not a Nahuatl or Mixe-Zoque word, but a Maya word meaning "Land of Rain or Mist" (Thompson 1950:115). The Tamoanchan place is associated with "primeros pobladores" (Sahagun 1955 (I):14) or the "house of descent, place of birth…where gods and men originated" (Seler 1904:220). Sahagun further explains that the Tamoanchan place was in the province of Guatemala (1955 (I):307), and associated with the land of mists, rain, and water. The long-abandoned Mirador Basin is a viable candidate for the mythical place of origin because of its swampy marshland landscape.

9

Rethinking the Role of Early Economies in the Rise of Maya States: A View from the Lowlands

ELEANOR M. KING

> Economic exploitation is thus the clearest manner to demonstrate that political power was being exercised. (Rosenswig and Kennett 2008:137)

It has become axiomatic in studies of the rise of states to assume that emerging elites differentiated themselves from their contemporaries by centrally controlling key economic sectors. Because a state is, by definition, a centralized, hierarchical political entity, many theorists conclude that all aspects of the society were similarly organized (cf. Smith 2003). Besides, there is an unspoken feeling that, while people may not live on bread alone, control over the production and distribution of that bread—the economy—is an easy, obvious, and sure way to extend one's power. There are many variations on the theme of centralized economic control; however, a general model can be sketched, citing Mesoamerican examples.

Increased population leads to increased food production and the generation of a surplus, controlled by a fortunate few, the incipient elite. Either the rise in population itself (Love 1999a), the increase in production (Price 1984), or both (Clark and Blake 1994) are thought to be stimulated by these elite, who may have privileged access to critical resources such as land and water (McAnany 1995; Scarborough 1998; Lucero 1999, 2006). Surplus, in turn, sparks the development or intensification of craft specialization, also controlled by the incipient elite (Brumfiel and Earle 1987). Specialized production then promotes regional and trans-regional trade networks that tie emerging political centers together (Sanders and Santley 1983). Thus, early elites living in central places control both production and distribution of essential goods. These range from crops and utilitarian items used in all households, such as stone tools, to prestige items made of prized, often "exotic" materials like jade, primarily consumed by the elite. Few scholars claim the elite managed *all* sectors of the economy. They leave room for low-level agricultural and craft production in the control of incipient commoners—those on their way to becoming less equal. Some horizontal bartering or exchange among this group is also presumed to exist. Generally, though, rising elites are thought largely to control both the means and mode of production (Marx and Engels 1970, 1972)—that is both the land, labor, and technology of production and the social relationships that organize and deploy that labor. The degree to which Maya elite power relied on control of the economy at various sites is still being debated. However, the point here is that most Mayanists would agree that the elite relied to *some* degree on economic control, and that this control was *ipso facto* hierarchical and centralized (Scarborough and Valdez 2009; McAnany 2010:4), as befits our prevailing notions of the archaic state (Smith 2003, cited in McAnany 2010:16).

Most investigations of the rise of complexity follow this model, whether iterated or not. Not surprisingly, then, they start with the question "What resources did the elite control?" and proceed from there. This is what Anne Pyburn (2004) has called a "bad" question, like the famous "When did you stop beating your wife?" Bad questions frame the investigation so that no contradictory evidence can be presented (Pyburn 2004:19). By assuming an incipient elite exerted centralized control over the economy, we only look for what and whom they controlled and when. Conversely, all fresh data is interpreted circularly in that light so that nothing new can be learned. For the Maya, the thrust of theories on the rise of complexity since the first origins conference 30 years ago (Adams 1977) has been mostly to push back the beginnings of sociopolitical differentiation to earlier and earlier times. Only the dates have changed. The framing of the debate and the evidence used to support different theories remain very much the same. A better question might be "Why do we assume the elite controlled the economy to begin with?" I propose it has to do with our ingrained worldview.

According to Sahlins (1996), much of our Western worldview is still inextricably linked to early Judaeo-Christian ideas. The key moment in that tradition is the fall of Adam and his expulsion with Eve from Paradise. Because Adam and Eve sinned by wanting something they could not have, their descendants were condemned forever to have to satisfy their own desires. As Augustine put it, "the punishment was the crime" (Sahlins 1996:397). This idea of needs-driven man, woefully subject to his own physical and mental limitations from which he is freed only at death, dominated medieval and Renaissance thinking. Hobbes, Locke, and the materialist philosophers of the Enlightenment, however, brought a new twist to this worldview. Where previous scholars had seen bodily needs as "the original evil and a source of vast sadness," the new wave of thinkers saw these needs as simply "natural" or at least a "necessary evil"—a rational response to the unavoidable human condition (Sahlins 1996:398). In the hands of Adam Smith, needs even become the supreme source of social virtue, and for Bernard de Mandeville they were the source of society itself. As Sahlins (1996:38) puts it: "*O, felix culpa*!…Out of Sin came Society. Men congregate in groups and develop social relations either because it is to their respective advantage to do so or because they discover that other men can serve as means to their own ends." Sahlins dubs this pragmatic, Western view of the world "utilism," which he defines as "need-and-scarcity-driven behavior" (Sahlins 1996:397; cf. McAnany 2010:8–10). He points out that it lies behind capitalism and has been a driving force in shaping the world as we know it. Utilism is the basis for our "native" or folk (Hallowell 1965) anthropology—the principle by which we weigh and understand the actions of all peoples regardless of how they themselves might conceptualize the world and human actions. Sahlins even daringly suggests, albeit in a footnote, that there is a connection between the "triple libido" discussed by Augustine and some of our most powerful and enduring social theories. Augustine identified three principal "human lusts": for temporal goods, for carnal pleasures, and for domination. Sahlins asks, "Is it too crude to point out that the three main Western theories of human social behavior or of the formation of society would invoke the same desires: gain (Marx), sex (Freud), and power (Nietzsche, Foucault)?" (Sahlins 1996:397–98). Whether or not we can go that far, it seems clear that utilism is behind our views of past elites and their behavior. It is *the* principle guiding our questions on the rise of the state, early economies, and resource allocations, or, to borrow

Jameson's term (1991; cited in McAnany 2010), it is the "cultural logic" that frames our research.

For the Maya and other truly "foreign" societies this background assumption is problematic because it does not allow us to discover other, non-Western principles of sociopolitical organization (see also Clark 2007b:21; Sharer and Golden 2004). The Maya, in particular, have suffered from this as they are frequently compared to societies that conform more to our Western views of complexity and are found wanting. Compounding the problem of utilism is our equally Western tendency to conflate the concepts of "hierarchy" and "order." We tend to see organization as possible only in hierarchical terms. Thus, society for us is organized only when it is hierarchically organized—a concept still with us from the Greeks. For us, the opposite of hierarchy, then, is not horizontality but chaos (Crumley 1987; see Scarborough and Valdez 2009 for additional discussion of our cultural bias towards hierarchy). Utilism and hierarchy together make it very difficult for us even to conceive of a different kind of social order, one perhaps not strictly geared to desires for domination, temporal goods, and carnal pleasures, and not necessarily hierarchical (see McAnany 2010 for an extensive discussion of other motivations).

To remedy this situation, I will attempt to adopt a less biased stance and examine the evidence we have on early Maya economies from a non-hierarchical and, hopefully, non-utilist or perhaps less utilist perspective. In the much longer paper I prepared for the conference (King 2007), I examined economic indicators of the pre-state to state transition throughout the ancient Maya world. Here I will focus on the Peten and northern Belize. My goal is to evaluate what the data, such as they are, actually tell us. Please note, though, that many of the arguments made here can be extended to other parts of the Maya area that had different resources and different economies.

Three questions are relevant to an economic discussion: (1) what resources were used by people in the Maya area prior to and during the development of complexity? (2) how were they used? and (3) how were they valued? These questions can best be answered by looking at the main sectors of economic activity recognized by anthropologists: production, distribution, and consumption. I should note that McAnany (2010:8*ff*.), in summarizing discussions of prehistoric economies, has suggested that these three categories may not even apply to pre-capitalistic societies. According to some scholars, they do not properly reflect and configure the way that such economies worked.

McAnany (2010) herself shows how inextricably linked social relationships and ritual activities were with economic ones in the Maya world. I would argue, however, that using these three categories as simple descriptors of distinct types of economic activity does not preclude the inclusion of other factors in ancient economic processes. In the absence of more emic divisions, they provide useful heuristic domains, well-understood in anthropology, that enable us to separate out different types of activities for comparison and discussion rather than considering the mass of data altogether. With that in mind, responses to the first two questions posed above can be found in the accumulating data on agricultural and craft production, as well as patterns of exchange. Consumption, too, often neglected in archaeological studies, can give us critical insights into what and how resources were used (Pyburn 2008; Metcalfe et al. 2009). Even more importantly, consumption can help us get at the far more elusive question of value. Lesure (1999) and Graham (2002) have reminded us that many raw materials and finished objects assume a range of values that can vary according to circumstances, including location, time period, and use. Flad and Hruby (2007), Clark (2007b), and McAnany (2010:203) emphasize the fungibility between different categories of goods—alienable/inalienable, utilitarian/prestige—depending on how they are consumed and, as Speal (2009) points out, circulated. Pyburn (2008) concurs, stressing that value was actively construed and advertised by human agents, notably the Maya elite. Thus, we need to focus on how agents used artifacts in order to determine their value (Clark 2007b; see also McAnany 2010 for discussion of this point). One way to do so is through archaeological context. Several scholars have convincingly argued that tight contextualization of economic indicators rather than broad "presence/absence" criteria will indicate their relative importance. This observation seems to hold true whether we are dealing with faunal and botanical evidence (Shaw 1991, 1999; Metcalfe et al. 2009) or "high-end" goods such as jade or shell jewelry (Krejci and Culbert 1995; Buttles 2002). By looking at the full spectrum of variation in the contexts of where specific goods are found in specific regions, then, we should be able to derive some idea of their relative value. Because values may have changed over time, we need to compare contexts that are as nearly contemporaneous as our broad time frames will allow.

The development of complexity represents a process, however, not a single event. For the Maya, as far as we now know, this development spanned from the Middle Preclassic (1000–400 BCE), when initial differentiation occurred, to the beginning of the Late Preclassic (400 BCE–250 CE), when the first true states appear. To highlight the process rather than the end product I adopt a diachronic perspective. I will focus on that chronological range with the understanding that the development of the state was not uniform throughout the Maya world. In addition, the "Maya state" was not a single, monolithic entity. Not only were early Maya states often differently configured, but they changed from the Preclassic through the Classic. To understand the origins of states and the nature of complexity, then, we also need to understand its *transformation* over time.

For purposes of this study I define a complex society systemically as one made up of differentiated and interrelated parts, integrated into one sociopolitical unit governed by a hierarchy of authority. Different roles in such a society are differently valued, and status is at least in part ascribed rather than achieved. This definition thus encompasses both early Maya communities where functional distinctions and incipient stratification are first evident and later ones where centralized authority and diverse social roles and institutions are well established.

To avoid falling into the usual Western intellectual ruts, I use a heterarchical rather than hierarchical view of Maya complexity. Heterarchy has been defined by Crumley (1987, 1995, 2003) and developed by others (e.g., King and Potter 1994; Ehrenreich et al. 1995; King 2000; Scarborough et al. 2003; Metcalfe et al. 2009; Scarborough and Valdez 2009) as a model of sociopolitical organization that allows for the interplay between both vertical or hierarchical and non-vertical or horizontal elements within a society. It thus gives equal analytical weight to "inequality" and "heterogeneity" (McGuire 1983) in the development and expression of complexity. Structures are "heterarchical when each element is either unranked relative to other elements or possesses the potential for being ranked in a number of ways" (Crumley 1987:158). Power, for instance, can be hierarchical, as when one city in a society holds dominion over another. It can also "be counterpoised rather than ranked," however, as when three cities of equivalent size and importance have different power bases—military, commercial, political (Crumley 1995:3). As Crumley (1987, 1995) points out, there is nothing intrinsically hierarchical about complexity *per se*; oak trees, crystals, and symphonies have complex structures that cannot really be described as vertically organized. In human populations rigidly hierarchical systems may contain egalitarian subsystems, just as egalitarian systems may contain hidden hierarchies (e.g., gender; Flanagan 1989). Critical to the argument here is the fact that heterarchy does not negate hierarchy, it subsumes it—a point often lost on scholars either following Crumley's lead or objecting to the model (e.g., Smith and Schreiber 2005:205). In Crumley's terms (1987:163), true complexity is actually the interplay between hierarchy and heterarchy "across space, through time, and in the human mind."

The beauty of this model is manifold. First, it does not privilege hierarchy—our Western sense of order—at the expense of other possible organizations. That allows us to ask the "good" question of how authority was configured rather than the "bad" question of what the elites controlled. Heterarchy also allows us to disentangle the various threads making up Maya society. We can thus envision economic, political, and religious systems that *may* or may *not* have operated independently of each other. In other words, heterarchy forces us to prove rather than assume that complex functions were centralized and conflated into a single hierarchical structure. This flexibility is key for understanding Maya economies, which even in the Late Classic (600–900 CE), when Maya states were well developed, never seem synchronized with sociopolitical and religious organization (King 2000). We can also unravel different components of these economies and examine their interplay, as Scarborough and Valdez (2009) and McAnany (2010) have recently demonstrated. In addition, heterarchy allows us to deal with the regional and temporal variations that seem to plague the research on early states. Where hierarchy does not accommodate variability, heterarchy does. Thus we can acknowledge differences in how and when new polities emerged in differing parts of the Maya area and look at them as part of a larger pattern of complexity. Finally, heterarchy conforms more closely to the new models of self-organizing systems arising from complexity theory in the sciences (Kauffman 1993; Lansing 2003), allowing us to place social systems within the context of other types of complex systems. I would stress, however, that heterarchy, like hierarchy, does not *explain* complex behavior, it merely *describes* it. We still have to sort out what motivates that behavior.

EARLY MAYA ECONOMIES: A SELECTIVE OVERVIEW

Maya economies, like the economies of most early states, were agrarian, in this case based on the cultivation of maize. Agriculture is thought to have grown slowly out of localized foraging economies of the late Archaic

(8000–2000 BCE) that practiced limited forms of cultivation. While these economies were largely undifferentiated in the Early Preclassic (2000–1000 BCE), when farming was first widely adopted, by the Middle Preclassic we begin to see marked differences in goods and productive strategies that culminate in the Late Preclassic florescence of Maya states. Most theorists believe that the increasing variability observed in the Preclassic reflects the control of a newly emerging elite over the basic means of production—land, labor, and technology, as in our archetypical economic model (cf. Scarborough and Valdez 2009; Smith 2003). Added to that suite for the Maya should be water, a critical resource during the dry season. It deserves special mention, because of the recent theoretical emphasis on its management as a source of elite power (e.g., Scarborough 1998; Lucero 1999, 2006; Lucero and Fash 2006).

"Control" is notoriously difficult to address archaeologically, as there are few tangible signs of elites exerting it. Scholars generally use the co-occurrence of several traits to suggest its presence. Thus, we often infer land ownership, for example, from the existence of differentiated agricultural lands, some richer than others, the evidence of their continuous and intensive exploitation, and the simultaneous presence of large, "elite" architecture nearby. Similarly, control over technology, for instance craft production, is inferred from the distribution and location of workshops in relation to elite households and central spaces. As mere association is not enough (Clark 2003), other clues include tracing the ways craft products move from producers to non-producers. Elite control over labor is even harder to ascertain. It is manifest in public works such as roads and temples, which are presumed to have been built by a labor force larger than an extended kin unit. Total man-hours per volume of monumental construction (Abrams 1994) or the general requirements of intensive forms of cultivation (Harrison and Turner 1978; Turner and Harrison 1983) have been used to suggest a system of *corvée* labor and commoner-to-elite work indebtedness for the Maya. Interpreting these kinds of activities as evidence for elite control assumes that appropriation of labor was key for early elites. Without followers they would have been unable to create or build the power base necessary for expanded social control. Some scholars even suggest that the elite not only reaped the benefit of labor obligations from subordinates, but also actively reorganized and mobilized that labor in new ways (Sharer and Traxler 2006:180–82), changing the social relations through which labor was deployed (Wolf 1982:75). In other words, they controlled the mode as well as the means of production. Another consideration is that control can be less obvious than through direct orders. Incentives or rewards represent more subtle means of getting people to do your bidding. These are difficult to define archaeologically, though, and fall within the larger purview of how authority is accepted, naturalized, and perpetuated (McAnany 2010:16).

It is beyond the scope of this chapter to devise new ways to measure elite control over the means and mode of production. I will therefore fall back on the methods available with the caveat that they are often inadequate. I will also leave to others the task of figuring out how a kin-based labor system might have been appropriated and transformed by an emerging elite (see Chapter 10 for one such model) and what made commoners buy into the system (see McAnany 2010). Instead, I will explore how well our overarching economic scenario actually applies to the lowland regions selected. I will examine the complete economic cycle of production, distribution, and consumption, with an emphasis on what these activities can tell us about elite control over the means of production. I will address mode of production in my conclusions. Due to space limitations, I will not discuss all aspects of this economic triad in detail. I will focus on just two lowland production systems, subsistence and lithics. Food and water are essential to questions of land tenure, crop production (staple and special), and control over labor. They are also the basis for the generation of surplus, which enables support for non-agriculturalists and *corvée* work forces. Maya lithics have been well studied and leave a strong archaeological signature. They will serve to exemplify the economics of technology. I will then look briefly at how these products were distributed by the Maya and, finally, consumed.

Production: Food and Water

Conventional wisdom has it that farming in the Maya area was first adopted from the highlands by already settled populations of intensive foragers inhabiting the Pacific and Belizean coasts. From there cultivation is thought to have been taken inland by people moving up the rivers. Recent evidence, however, has suggested that some cultivars, such as maize, may actually have had a lowland origin and that Early Preclassic lifeways were far more variable than presumed (Pohl et al. 1996, 2007; Piperno et al. 2007; Lohse et al. 2006; Neff et al. 2006c). Some populations (Pacific coast) appear to have been settled whereas others (Belize) were not, and different groups relied differentially on agriculture. This early variability had important implications for the rise of Maya states.

In the central lowlands increasing data on early agriculture has given us a picture of contrasting developments (see Chapters 6 and 10, this volume). Pollen research in Belize has shown early evidence for habitat disturbances with cultigens (maize and manioc) appearing between 3400 and 3000 BCE (Jones 1991, 1994; cited in Lohse et al. 2006). Cultivation seems to have been more common around wetlands such as Cob, Cobweb, and Pulltrouser Swamps after 2400 BCE (Lohse et al. 2006), and farming became widespread in the Early Preclassic (Jones 1994; Pohl et al. 1996; cited in Lohse et al. 2006). This conclusion is supported by use-wear studies of constricted unifaces, the diagnostic artifact of the late Early Preclassic, which suggest they were used for land-clearing and perhaps hoeing (Gibson 1991; Hudler and Lohse 1994; cited in Lohse et al. 2006). Faunal analyses in turn suggest that, by the beginning of the Middle Preclassic, the species available reflect a long-disturbed habitat and, specifically, destruction of high-canopy rainforest (Shaw 1991, 1999). However, the degree to which the early inhabitants of Belize actually relied on agriculture is debatable. Early Preclassic settlement data are lacking, despite MacNeish's discovery of a few stratified early tool deposits on the coastal plain (Leslie Shaw, pers. comm. 2007) and the presence of early pit and posthole features on Caye Coco (Rosenswig 2004; cited in Lohse et al. 2006). It seems that most of Belize's inhabitants were still mobile foragers who practiced wetland margin agriculture as part of a broad subsistence round. How much they relied on maize even after they settled into farming is also in doubt, as maize counts remain low at various sites throughout the Preclassic (Miksicek 1991; Tykot et al. 1996; Powis et al. 1999; White and Schwarcz 1989; Henderson 2003). Indeed, both floral and faunal analyses suggest that wild foods remained an important part of the diet at this time (Henderson 2003; Shaw 1991, 1999).

Settled, pottery-using villages only appeared at the end of the Early Preclassic in Belize. The earliest are found in the Belize River Valley at Cahal Pech and Blackman Eddy, dating to between 1200 and 1100 BCE (Awe 1992; Garber 2004; Garber et al. 2004b; Healy and Awe 1995; Powis et al. 1999). In the north the dates are generally slightly later, though initial dates as early as 1200 BCE have been postulated for Cuello (Kosakowsky and Pring 1998). The recent consensus seems to be, however, that the first pottery-using villages appeared at Colha (Hester 1996), K'axob (McAnany et al. 2003), and

Cuello between 1000 and 600 BCE. It seems likely, then, that for a significant period of time mobile and settled horticulturalists co-existed in Belize.

It is unclear why settlement happened earlier in the Belize Valley, but there is evidence that agriculture and sedentism in the north responded to climate fluctuations. Several scholars have reported significant changes in the water table (Folan et al. 1983; Miksicek 1991; Pohl et al. 1996). Overall, sea levels have risen steadily 125 m since the beginning of the Holocene (Luzzader-Beach and Beach 2009), creating new wetland habitats in coastal areas (Pohl et al. 1996) and a higher water table (Luzzader-Beach and Beach 2009). However, this trend seems to have been reversed when the climate was cooler and drier (Miksicek 1991). One such regression happened in the Early Preclassic, with sea levels and water tables reaching their nadir between 1500 and 1000 BCE (Pohl 1996:364). In northern Belize drier conditions resulted in the exposure of significant new tracts of fertile, organically rich soils at wetland margins. Unsurprisingly, cultivation around these areas increases dramatically during this time, though the horticulturalists remain mobile. The pendulum then swung the other way, with water tables rising again around 1000 BCE and drowning the habitual wetland fields (Pohl et al. 1996). Near Cobweb Swamp, horticulturalists reacted by draining and modifying these fields in the early Middle Preclassic, leaving the first evidence for intensive agricultural practices in this area (Jacob 1992, 1995). To better keep up their fields, they decided to settle nearby, establishing the first village at Colha under the site core around 900 BCE (King and Potter 1994; Hester 1996). A high degree of cultural continuity in lithic techniques and forms suggests that the settlers were descendants of the original foraging cultivators rather than intruders (Iceland 1997). Sedentism at Colha thus seems to have followed or at least to have been coeval with agricultural intensification. The establishment of other sites in northern Belize, such as Cuello (Miksicek 1991) and K'axob (McAnany et al. 2003), also coincides with the rising water tables, though neither site is specifically associated with intensified agriculture. Cuello's location not far from Pulltrouser Swamp and K'axob's right on that swamp (Harrison and Turner 1978; Harrison 1990; McAnany et al. 2003), however, suggest that it could well have been an important factor in settling.

It is tempting to see agricultural intensification as the root of subsequent elite differentiation in the north, but the correlation is far from clear. The early Middle Preclassic communities there, like village communities throughout Belize at this time, were egalitarian. In fact Cliff and Crane (1989) have argued for Cerros that the Maya worked hard to suppress evidence of their differences until the Late Preclassic. It seems more likely, then, that we are dealing initially with what Pyburn (1998, 2008) has called "smallholders" and Lohse "householders" (Lohse 2002; Lohse and Valdez 2004)—small family farmers working to keep what they had. Social differences do emerge, but slightly later during the Middle Preclassic, when there is evidence at Colha, for example, of both horizontal and vertical differentiation. Distinct activity areas have been identified, including one that combined large hearths, plaster floors, and a high percentage of *tecomates* (neckless jars) for some unknown purpose (Roemer 1979). In other sectors, numerous burin spall drills, found in association with shell beads, suggest that bead manufacture as well as lithic production might have been important "cottage industries" at this time (Potter 1980:189; 1991). This variation in activity across the site strongly calls to mind Sheets's (2000) description of Late Classic Ceren in El Salvador, where households of comparable status showed evidence for horizontal specialization and interdependence. Similar specializations in shell ornament production have been documented for Cahal Pech and Pacbitun in the Belize River Valley (Lee and Awe 1995; Hohmann and Powis 1996; cited in Powis et al. 1999) and at Kichpanha in northern Belize, not far from Colha, where tool production is also found (Leslie Shaw, pers. comm. 2007). The beginnings of hierarchical differentiation appear at Colha in the replacement of domestic architecture in the site center by large, open platforms used for well-furnished burials and caches (Potter 1980, 1982; Buttles 2002), in a pattern McAnany (1995) has elaborated for K'axob and Garber (2004) for Blackman Eddy, slightly earlier. Whether the burials at Colha belonged to farmers, chertworkers, beadmakers, tecomate-users, or another group, however, remains moot. There is no clear-cut economic basis to incipient elite power. The same could be said for similar small communities now documented throughout northern Belize. Internal differentiation and incipient stratification hint at the beginnings of complexity but the economic tie-ins are unclear.

By the Late Preclassic clear stratification had emerged at northern Belizean sites, but it still does not seem to have been based on direct elite control over land and crop production. At K'axob, a longitudinal study by Henderson (2003) focused on the expanding size of farming households beginning in the Late Preclassic. Her results suggest that what she calls "large corporate households" developed quite slowly at the site and show significant autonomy in terms of indicators ranging from diet to goods. She concludes that the elite here controlled neither the land, nor the crops, nor the mode of production. Rather, the farmers did, though the elite may have had some overarching authority that could specify what they required (cf. Pyburn 2008 for a similar view of Late Classic households). Henderson's (2003) study is particularly significant because K'axob is one of the communities perched on the edge of Pulltrouser Swamp and associated with the raised fields there at that time (McAnany 1995; McAnany et al. 2003).Similarly, Scarborough and Valdez (2009) have documented the proliferation of small communities along the escarpments overlooking the Rio Bravo in the Three Rivers Region of Belize at this time. They argue that, from the beginning, these were interdependent, resource-specialized communities with economies based more on horizontal exchange than allegiance and tribute to the larger regional centers.

In the Peten interior a different pattern of land use and development prevailed from early on. There the importance of permanent water for Maya agricultural economies is evident. Pollen analysis from the edge of the Mirador Basin suggests that forest clearance and maize cultivation there may have begun as early as 2750 BCE, although the first permanent structures date only to 1000 BCE (Wahl et al. 2006). Perhaps the earliest horticulturalists in the Peten, then, were similar to their mobile counterparts in Belize, though there is little evidence, as yet, of their existence. The palynological consensus is that the period of significant human impact on the Peten environment begins around 1200 BCE (Brenner et al. 2002; Dunning et al. 2002; Hansen et al. 2002; Wahl et al. 2006), contemporaneous with settled villages in the Belize Valley (Lohse et al. 2006). It seems probable that these pioneers were already settled horticulturalists, based on the ceramics they left behind and the evidence from soil analyses. Work by several scholars has convincingly argued that early Maya occupations in the central lowlands focused on what were originally perennial wetlands, some with open water, which would have provided a ready source of water for storage and use during the dry season (Dunning 1995; Dunning et al. 2002, 2006; Hansen et al. 2002; Wahl et al. 2006; Beach et al. 2008). Access to water was crucial for settlement in this area, as the interior of the Peten is a karstic plain with internal drainage but no permanent rivers (Beach et al. 2006:6). Farming of wetland margins was underway by the early Middle Preclassic throughout this region, at a time when maximal rainfall across the southern lowlands (Brenner et al. 2000; Pope et al. 2000; cited in Dunning et al. 2002) would have helped establish permanent water sources (Dunning et al. 2002). In fact, the densest known area of early settlement in the Peten is the Mirador Basin where 70 percent of the land has been estimated to be *bajo* (Jacob 1994; cited in Hansen 2005), or wetland, now seasonal but once perennial (Dunning 1995; Dunning et al. 2002, 2006).

The earliest known occupation in the Mirador Basin is at Nakbe, where the remains of structures probably made of pole and thatch are associated with packed earthen floors. These constructions were swiftly replaced in the early Middle Preclassic (1000–800 BCE) by more substantial structures (Hansen 1993, 1994, 1998, 2005). By 600–500 BCE Nakbe covered an estimated 40–50 ha. There was also marked evidence of social differentiation at this time. Variation in the size and sophistication of residences, now made of stone and associated with paved plazas, suggests unequal access to resources. This conclusion is supported by the uneven distribution of decorated ceramics and figurines and by skeletal evidence for cranial deformations and dental incrustations in selective burials. Significantly, certain design motifs such as the mat, associated with elites, first appear at this time (Hansen 1993, 2005). The first large public platforms were erected during the middle of the Middle Preclassic, suggesting incipient elite access to and control over labor (Hansen 2005:63). By the Late Middle Preclassic monumental construction was well underway, with large platforms covering thousands of square meters and the first major architecture, including an E-group, placed around well-defined plazas on a pronounced east-west axis (Hansen 1993, 2005). The uniformity and large size of the blocks used as well as architectural innovations such as apron moldings and evidence for specialized quarrying techniques all suggest the existence of stone-working specialists (Forsyth 1993c; Woods and Titmus 1996; Hansen 1994, 2005). During this period, too, the first carved stone monuments are found, including stelae and altars, though some altars may have been used as early as 600 BCE (Hansen 2005). Aqueducts and other hydraulic systems as well as massive causeways connecting Nakbe to other sites in the Mirador Basin similarly date to 600–400 BCE (Hansen 1993). By this time the centralization and sociopolitical differentiation that are hallmarks of the state were clearly well underway in the Peten. They would continue to evolve into the first full-fledged Maya states of the Late Preclassic at Nakbe, nearby El Mirador, and other locations (Hansen 1990, 2005).

In this area it is easier to identify a possible economic reason for elite success. The prime areas around the wetlands could have been privately owned, just as Coe and Diehl (1980) postulated for the river levees on the Olmec Gulf coast. Soils research suggests that, while the dry uplands would have been productive, the initial organic content of the fertile wetland margins would have made them even more so. As Wahl et al. (2006) observe, they could easily have been farmed by ditching and draining techniques already known to the pioneers. However, there does not seem to be any archaeological evidence to support the idea of private ownership. There are no houses squarely located on plots, no barriers between plots, and no other such property markers.

The intensification of agriculture shows more promise as a basis for incipient elite control. Excavations adjacent to a palace complex in the Nakbe site center have revealed an artificial garden terrace system where fertile mud "imported" from the neighboring wetlands was used to grow maize, squash, and gourds (Hansen et al. 2002). The date of this fill is uncertain, but 2.5 m of it lies over a floor level with Middle Preclassic ceramics (Hansen et al. 2002:286) as a *terminus post quem*. The bulk of the fill could thus be Late Preclassic, when states were already well developed. There are indications of earlier levels of imported mud (Hansen et al. 2002), but how substantial and pervasive they are is unclear. Certainly, the emerging soils and climate information suggests that true intensification and the organizational changes it connotes are not coeval with the initial development of complexity. Instead, intensification seems to have been the gradual result of long-term human impacts on the environment, and seems to have reached a peak only in the latter part of the Late Preclassic. Indeed, in much of the Peten aggressive farming during the Early and Middle Preclassic seems to have precipitated deforestation and massive erosion. Aggraded soils filled in the wetlands, turning them into seasonal swamps (Dunning 1995; Dunning et al. 2002, 2006). This process was accelerated in the Late Preclassic by a gradual, if erratic, drying that culminated in a time of maximum desiccation around 100 CE (Dunning et al. 2002:278). The extensive terracing at Nakbe may have begun in the Middle Preclassic, but seems to have become prominent only in the Late Preclassic as inhabitants tried to counter the destruction of their productive environment. Similar terracing has been recorded at Calakmul on the *bajo* margins at this time (Gunn et al. 2000; cited in Dunning et al. 2002). It is also in the Late Preclassic that we begin to see deliberately engineered reservoirs in the site cores, presumably to replace the dwindling open water resources (Scarborough 1993; cited in Dunning et al. 2002). These human efforts ultimately proved futile, however. Even terracing could not prevent further destruction; at Nakbe at least one Late Preclassic terrace surface lies buried beneath massive colluviation (Dunning et al. 2002:276). Drying and infilling degraded the perennial wetlands beyond recovery, causing the abandonment of many of the precocious Peten states by 150 CE (Hansen et al. 2002). This devastation was not universal in the Yucatan interior. In the south, around places such as Laguneta Tamarandito in the Petexbatun area, probably a combination of more careful management (Dunning 1995) and different micro-environmental conditions (Beach et al. 2006) were able to forestall large-scale erosion and enable continued exploitation of wetland margins.

Subsistence Summary

The contrast between northern Belize and the Peten highlights both similarities in the nature of basic subsistence resources in the Maya lowlands and the variability in their exploitation. Farming communities in both areas relied on wetland margin agriculture, which, in fact, had provided the initial impetus to settlement. In Belize, however, where water sources are abundant, there was a conscious choice to focus on horticulture at the expense of other activities in the seasonal round. In the river-deprived Peten, on the other hand, settlement focused early around perennial wetlands. Though mobile horticulturalists may have roamed there initially, their activities would perforce have been confined to the areas nearby permanent water sources, where they rapidly established themselves. In both areas intensification seems to represent an effort to improve endangered soils, but with vastly different timing and results. In Belize intensification occurred when early farmers attempted to rescue wetland margins from rising groundwater, and sedentism followed. Presumably they remained nearby to monitor and maintain the fields. While it is tempting to see early "owners" of these improved lands as the initially differentiated elite at places such as Colha and K'axob, the correlation is far from clear. The existence of other resources and specializations suggests alternate elite candidates. The presence of terraced fields adjacent to communities that lacked significant monumental structures in the Rio Bravo area (Scarborough and Valdez 2009) also argues against the importance of agricultural intensification for elite development.

In the Peten, the concentration of early farmers on the limited prime land at the margins of wetlands seems to conform to the classic scenario of limited resources appropriated by emerging elites. However, true intensification seems to happen there much later at sites like Nakbe, in reaction to problems caused by human action, compounded by climatic change. In neither case can we state unequivocally that intensification was part of an elite strategy, deliberate or not, to seize and manipulate advantageous lands for their own benefit.

Comparing these two regions demonstrates that there was considerable variability in subsistence throughout the Maya area. People residing in different places had access to the same general suite of resources, but these were locally variable and uniquely configured. They may have exploited them in similar ways but the results were as varied as the individual localities themselves (cf. Scarborough and Valdez 2009). This truism merits restating in light of continued scholarly insistence on the importance of intensive agricultural methods or hydraulic management in the rise of Maya states. The correlation is just not that simple. It rests primarily on the idea that larger populations would have needed food and water and that the managerial requirements of intensifying food production and/or supplying water would have promoted the concentration of power in the hands of a few (cf. Flannery 1972 on linearization in social systems, where lower order controls are bypassed by a higher control). In Belize intensification did indeed precede the development of complexity, but it cannot be said to have "caused" it. While permanent settlements supported more people than mobile camps, sites remained small throughout the Middle Preclassic when elites first emerged. In the Mirador Basin, on the other hand, the existence of limited water resources coupled with fertile soil seems to have promoted concentrated population growth in select places. While clearly a large population can spur state development, here again there is no direct correlation between intensive agriculture and sociopolitical differentiation. Intensification, in fact, seems to have been more a consequence of complex development than its cause, as Late Preclassic farmers tried to mitigate the damage done by their forbearers. By that time, Nakbe was already a powerful center on the wane and El Mirador was in its full glory. The dedication with which the farmers struggled to maintain their fields in the face of major erosion suggests that these fields had become too important to abandon—probably because population peaked in the Basin at this time (Wahl et al. 2006). Interestingly, a parallel situation prevailed in Belize where progressive erosion from the Middle to the Late Preclassic rendered wetland margin fields less productive (Jacob 1992, 1995). Human overexploitation of local fauna compounded the crisis, which peaked in the early Late Preclassic. Shaw (1991, 1999) has argued that, as a result, the residents of Colha, at least, were forced to rely on their social networks for provisioning rather than increasing use of an already depleted habitat. I have suggested elsewhere (King 2003) that it is this strategy rather than intensification that promoted stratification and centralization of an already differentiated society at Colha in the Late Preclassic, a point to which I shall return.

Specialized Production: Lithics

Craft production has long been associated with the development of complexity. The very existence of specialization implies the kind of organic solidarity (Durkheim 1933) and interdependence that complex social systems signify (King 2000; McAnany 2010). To use Flad and Hruby's (2007) terms, while "product specialization" can even be found in egalitarian communities, "producer specialization" has been viewed as a hallmark of complexity since the days of V. Gordon Childe (Clark 2007b). It implies a level of interdependence that precludes autonomous functioning and supports the emergence of a new class of people not involved in day-to-day food or technical production. This new group may be horizontally differentiated from the producers, fulfilling other functions (e.g., religious specialists). More commonly, though, they are deemed to be vertically differentiated—elite appropriators and/or managers of productive work. Thus, our concept of craft specialization and functional interdependence in a complex society automatically drapes itself over a sociopolitical hierarchy (King 2000:7–11). Taking a heterarchical approach to this problem, however, requires asking rather than assuming to what extent craft resources and production were actually controlled by incipient elites. Again, what were the available resources, how were they distributed, and how did the Maya exploit them over time? Recently, discussions of craft specialization have emphasized a practice approach that attempts to contextualize craft production and use and sees a continuum of circulating items from gifts (unalienable) to commodities (alienable) (Flad and Hruby 2007; Clark 2007b). Specialization *per se* is not my focus here, however, but rather its role in traditional theories of complexity. Craft production in this context can be viewed as product specialization that develops into producer specialization over time. I will focus on lithic production, an archaeologically visible and clearly specialized craft system, to examine this process. While stone tool making followed its own unique pathways, as did each craft system (King 2000, 2007), it can speak to the general issues raised by specialization in relation to emerging complexity.

In the Maya area a long-established chipped stone industry made tools from local resources that varied by region. In the lowlands, chert and chalcedony of various grades predominated, as these materials occur naturally in limestone formations. Imported obsidian is also found in the lowlands, mostly in the form of prismatic blades and blade cores. Jade was similarly imported, but from early on was used for special-purpose rather than everyday items. Finally, a smaller lowland pecked and groundstone industry focused on production of *manos*, *metates*, and other items from both local and imported materials. I will focus here on chert/chalcedony, as these materials represent the bulk of lithic tools used in the lowlands. Obsidian and jade have been much researched as items of long-distance trade, so I will discuss them below under distribution. Groundstone, although a significant trade item, has been comparatively little studied. I will therefore omit it from my discussion.

Chert/chalcedony is widely distributed throughout the central lowlands, but varies greatly in quality from place to place. In the Peten at Tikal large, high-quality nodules of chert were plentiful (Moholy-Nagy 1976, 1991). While no workshops were excavated, the range of manufacturing debris present, from unretouched flakes to manufacturing failures, confirms that the entire production sequence took place locally. Consumption seems to have been primarily local as well, given the numbers of used tools and flakes found and the small amount of non-local chert in the assemblage (Moholy-Nagy 1991). However, there is no way of telling how much chert Tikal may have exported to nearer or farther neighbors in the form of nodules, preforms, or finished products. Moholy-Nagy (1991) suggests incipient specialist production may have begun at the site towards the end of the Middle Preclassic, as tool types increase significantly. By the Late Preclassic lithic innovations such as stemmed artifacts (bifaces and bifacial points) and the improved quality of the tools suggest a well-developed and already specialized lithic industry. Interestingly, the small quantity of chert imports increases at this time, too. However, the lack of workshop information makes it impossible to assess how production was organized. Was it in the hands of the elite or the specialists themselves? How closely tied were the elite and the specialists? Who controlled the distribution of chert products? These questions remain to be resolved.

In the Mirador Basin to the northwest, a different situation prevailed. There chert occurs mostly in small nodules of inferior quality, found in the *bajos* (Woods and Titmus 1996). Preliminary assessment of decortication flakes from Nakbe has suggested that the chert was recovered locally on the surface (Woods and Titmus 1996), rather than mined. It was used primarily in the production of general utility bifaces and a range of other utilitarian tools that parallel the types documented for El Mirador as well (Woods and Titmus 1996; Fowler 1987). Some of the chert, particularly for larger tools, seems to have been imported. Indeed, Woods and Titmus (1996:486) argue that the need for better quality material would have helped foster early specialization at Nakbe. They suggest that individual nodules were imported and that the cost of transporting chert of an appropriate size and quality would have encouraged a high level of skill. No one would want to see material wasted, particularly during the crucial first stage of creating a blank, the most difficult part of the reduction process (Woods and Titmus 1996:486). It is perhaps not surprising, then, that eccentrics, which require making a "nearly flawless biface" much larger than the end product, are rare at Nakbe (Woods and Titmus 1996:487). Here the evidence for specialization is significantly more indirect than at Tikal, especially given the small overall number of tools (276) reported and, again, the absence of workshops. While reduction of local chert no doubt took place at the Mirador Basin sites, it is quite possible that manufactured tools were imported from elsewhere—perhaps even Tikal. It certainly does not look as though lithic production *per se* played a great role in the Preclassic economy. There are no published clues as to its development over time, so it seems likely it stayed at a rather constant level of expertise and investment. Better evidence for a specialized craft comes from one of the uses to which the general utility bifaces were put, which was stone quarrying (Forsyth 1993c; Woods and Titmus 1996; Hansen 2005). However, the degree to which that was under the "control" of elites simply because it was a specialized craft and because the stone was mostly used in monumental constructions is debatable. As Clark (2003) has pointed out, to infer "control" we need more than mere juxtaposition of data. It is also not clear how control of a craft aimed completely at local elite consumption would have given the latter the early "edge" they needed, according to the classic theory, to dominate others at the site. Indeed, quarrying for monuments would seem to have been a by-product rather than a cause of complexity, a way to solidify and perpetuate incipient differences (see McAnany 2010:141–57).

In northern Belize circumstances were different still. There an abundance of high-quality chert, localized in what Shafer and Hester (1983) have called Belize's "chert-bearing zone," permitted the development of an important toolmaking industry in the Preclassic, centered on the site of Colha. Located at the northern end of the zone, Colha was a locus for chertworking activity from the Archaic on (Iceland et al. 1995; Hester 1996; Iceland 1997). By the Middle Preclassic, significant numbers of both expedient and recognizable formal tools were produced, including the burin spall drills previously noted. Use-wear analyses suggest that each form served multiple functions (Potter 1991). The wide range of forms, their variability in function, and the lack of workshops indicate that lithic production was not yet fully specialized at this time. However, the already high level of craftsmanship suggests it was well on its way (Potter 1991). By the Late Preclassic, the production system had changed dramatically. Distinct lithic workshops appear at this time intermingled with residences in three "manufacturing zones" near the site core (King 2000:102, 158, 190). Production was a highly standardized, two-stage process. Large numbers of tool blanks were prepared in off-site quarries and taken back to the workshops, where they were fashioned into a narrow range of formal tools, including oval bifaces, tranchet bit tools, blades, and eccentrics (Shafer 1979, 1982, 1991; Shafer and Hester 1979, 1983). All workshops appear to have produced the same four tools, but some may have specialized in producing more of one particular form (Shafer 1991:38). These tools were traded widely in Belize and beyond, with some found as far away as Tikal (Moholy-Nagy 1991) and El Mirador (Sharer and Traxler 2006:262) in the Peten. Two "consumer zones" can be identified. One was a "primary" area extending 75 km in radius around Colha for utilitarian artifacts like the oval bifaces, the other a "peripheral" area 200 km in radius for elite items, such as macroblades and eccentrics (Shafer and Hester 1983; Hester and Shafer 1994). In fact, it would be fair to say that Colha dominated lowland tool production at this time. Its tools apparently even replaced local products in sites where there were pre-existing lithic industries, such as at Blue Creek in northern Belize (Barrett 2004, 2006).

The indications are strong that the Colha elite were directly involved in all aspects of lithic production and distribution during the Late Preclassic. The aggregation of workshops into manufacturing zones, the similarity in their output, and the clear separation between quarry and workshop activities argue for an overarching production strategy at this time. While the proximity of workshops to the site core does not by itself indicate control (Clark 2003), that fact combined with chertworker involvement in elite activities supports the idea of centralized management. There is strong evidence that a skilled blade-maker participated in the placement of at least one important cache in a core temple during this period (Potter 1992; King and Potter 1994).

Despite Colha's dominance of Late Preclassic lithic production and trade, lithic procurement systems in northern Belize at other sites may have been more variable than expected. There are indications that Colha not only exported formal tools but also macroflake or macroblade blanks that were made into tools by the consumers themselves (McSwain 1989, 1991a, 1991b; Santone 1993). Also, inhabitants of sites such as Cuello near the chert-bearing zone may have procured their own nodules (McSwain 1991a, 1991b). There are such broad similarities across chert formations that there is still no sure way to determine where in the chert-bearing zone individual items originated (Cackler et al. 1999; Chiarulli 2006). It is possible, then, that dual systems of procurement existed, with sites both importing tools and preforms from Colha and gathering their own chert from the zone. Several sites within the "primary consumer zone" seem also to have retained local lithic procurement systems focused on other resources. Blue Creek did, albeit at a reduced level (Barrett 2004, 2006). So did Cuello, whose inhabitants continued to use a local chalcedony (McSwain 1991a). It seems clear that at any given site in Belize in the Late Preclassic there were several different ways to procure lithics. Sites could receive finished products from Colha directly via long-distance or regional trade, they could receive unworked nodules from Colha or other parts of the chert-bearing zone, which they would work themselves into expedient tools, they could procure and work these raw materials for themselves, or they could procure and work generally poorer-quality lithic materials closer to hand (see Speal 2009 for further discussion of variability in procurement). Some of these choices reflect different valuations of the material and different "costs," a point that I will address in the conclusions.

Summary of Lithic Production

The variability visible in subsistence is, unsurprisingly, recapitulated in lithic production strategies across the central lowlands. While in some places, such as the chert-bearing zone of Belize, localized resources seem to have lent themselves to centralized control, complexity was not a necessary consequence of their exploitability. At Tikal, which abounds in good chert, there is no evidence for anywhere near the same level of organization and sheer volume of production as at Colha. That lack of development is noteworthy in light of the poor-quality chert found at other northern Peten sites. One might expect chertworking to have played a more important role in Tikal's rise to power. Conversely, an absence of good chert does not seem to have impeded the growth of Nakbe and El Mirador, which dwarfed Tikal and Colha alike in the Preclassic. Arguably, some of their power could have come from controlling stone imports, but the volume of that trade seems insignificant in their economies. By the same token, Colha was never the Maya giant our economic models might predict nor did its dominion over the lithic trade continue into the Classic. Why not? If elites rise to power by controlling a critical resource, what is wrong with chert? And if chert was indeed the basis for Colha power, why did it fail in the long run? Though Colha ruled lowland lithic production in the Late Preclassic, that development happened late. Why? After all, the inhabitants of the site had been sitting on the same important resource since the end of the Early Preclassic. While the beginnings of sociopolitical differentiation are already visible in the Middle Preclassic, they are overshadowed by what was going on at Nakbe at that time. They also did not approach the level of stratification evident at Colha later on. Additionally, it is not clear that the emerging elites relied economically on tool production. While chertworking was important, it was not, as seen, the *only* activity at the site and perhaps not even as significant as intensive farming. What, then, was early differentiation at Colha based on and did that basis change over time? Finally, even when centralized control existed it was not necessarily complete. The lithic industry in Belize even at the height of Colha's power was variable and probably opportunistic, with each community deciding for itself the appropriate mix of procurement strategies. Ultimately, we need to remember that the Maya, like all of us, made choices. These were made by incipient elites and commoners both, separately and together. Such decisions are further reflected in patterns of distribution and consumption, discussed below.

Distribution

Distribution includes different kinds of exchanges, from reciprocal to redistributive (including tribute) to market, following Polanyi's (1968) classic scheme. It can be difficult to distinguish between these archaeologically, as "foreign" goods, or ones not produced at a site, could have arrived there through any one of those means (cf. Clark 2003). Bearing that in mind, I will focus on trade, which includes reciprocal exchanges such as bartering and market exchange, because of its importance to the Maya. The concept of "market" is useful here despite the non-capitalist context, *pace* Polanyi, because, as Smith (2004) has argued, we need to be able to refer to commercial exchange when dealing with ancient or proto-states. Markets are near invisible in the archaeological record of the Maya and documenting their existence and development remains a critical issue for further research if we are to understand the nature of trade in this area (see King and Shaw 2007; Dahlin 2003, 2009; Dahlin et al. 2007; Shaw 2012). For the present, I will assume that markets are as old as the world and that some kind of at least informal market system must have existed from early on in the Maya area.

Trade, especially long-distance trade, has long been seen as an anchor of elites among the Maya. Control of exotic goods and/or trade routes is often argued to trigger sociopolitical differentiation. Incipient entrepreneurs are thought to use their access to special contacts and special goods to control distribution, thereby seizing and securing permanent power (e.g., Rathje 1972; Freidel et al. 2002). While it is clear that trade was key in early Maya societies, our top-down approach and our tendency to zero in on long-distance trade obscures some important patterns, lately emerging. Below, I will summarize some of the significant data on trade, focusing on how resources moved around, whom they went to, and who moved them.

Three levels of trade can be distinguished for the Maya area, which may be loosely termed local, regional, and long-distance (cf. Speal 2009 on lithic trade). Local trade is the hardest to document, as materials from neighboring sites tend to resemble each other; however, it is occasionally identifiable. Barrett (2004, 2006), for example, was able to distinguish tools produced within the Blue Creek settlement area from regional and long-distance imports. The problem here, of course, is determining the mechanism by which these tools moved and whether that changed over time, which it might have. In the Middle Preclassic, when social differentiation was not well developed, these lithics could have been bartered; later on they seem to have been redistributed. Barrett (2006) notes that there is a drop in local tool use from the Middle Preclassic to the Late Preclassic in the Blue Creek area, due to imports from Colha. Contrary to what one might expect, most of the waste and tools associated with local production show up in elite contexts in the Late Preclassic. To Barrett (pers. comm. 2007) this suggests an elite monopoly over the local production process at that time. The same problem of distribution mechanism applies to Cahal Pech where some kind of local exchange might be inferred indirectly from dietary data. Powis et al. (1999) document differences in Middle Preclassic maize consumption there between residents of an outlying settlement and two more central groups at the site. They propose that the higher rates of consumption in the site core reflect higher status, which suggests that maize came in as tribute and was redistributed. However, an alternative explanation could be that the center residents had a different diet because they did not provision themselves directly. The inhabitants of one group, for example, were shell ornament craftsmen, who might have exchanged their product locally for food. There is no reason to postulate elite involvement in this process.

Trade on a regional level is easier to see and has been well documented. Maya communities were probably never self-sufficient (Love 1999a; Barrett 2006). From the earliest times, communities located in different areas relied on each other for essential products. Thus, early Middle Preclassic inland villages in Belize regularly received fish and shellfish from the coast, probably in exchange for farm produce. This kind of intra-regional trade very likely developed out of even older patterns of exchange during the Archaic period between different foraging populations. By the time of initial social differentiation, probably no one in Belize lived only off what the surrounding land and water could provide. The goods procured tend to show up in a broad range of contexts within sites, suggesting that they were widely available to all consumers. Thus, marine edibles are found throughout the sites of Colha, Cuello, and Cahal Pech at this time (Shaw 1991, 1994; Wing and Scudder 1991; Powis et al. 1999). Barter or market exchange rather than elite redistribution best explains their dissemination.

In other cases, however, it is more difficult to distinguish between trade and tribute among neighboring sites, as Rosenswig and Kennett (2008:139) have pointed out. Sometimes, regional trade was more uneven, with particular goods only going to the elite. This was the case for Colha's stemmed macroblades and certain ceramics like the spouted vessels used for cacao

(Powis et al. 2002). The difficulty here is in determining whether these circulated as part of a gift exchange of inalienable goods or as part of a redistributive economy that led to a concentration of alienable objects in the hands of the elite. Compounding the problem is the fact that categories such as inalienable/alienable and gift/commodity are fungible (Flad and Hruby 2007; Clark 2007b). They do not connote essential qualities of the objects themselves, but rather identify how certain objects are used in specific circumstances (Flad and Hruby 2007:9), or even how they reached a site (Speal 2009:108). Valuation can also be a reflection of scarcity. Thus, marine shell beads, prized by the elite at inland sites, did not have the same importance at coastal sites like Cerros, where stone beads were preferred (Rosenswig and Kennett 2008:141). Scarcity was not always a factor, however. Moholy-Nagy (1997:296; cited in McAnany 2010:231) points out that in Classic period Tikal, obsidian, a long-distance good, was found in common domestic contexts whereas prized eccentrics were made from local chert. Hence, the same object and the same source material could be viewed differently in different contexts or at different times. In the examples above, both spouted vessels and stemmed macroblades are found in ritual (burials, caches) and elite contexts; however, they also occur in other, less prestigious locations (Shafer 1991; Powis et al. 2002). They could thus have moved through local economies both laterally, as gifts among the elite, and vertically, down a specific hierarchical chain within a polity, thereby affirming the legitimacy of the sociopolitical hierarchy (Potter and King 1995). Alternatively, they could have been more widely traded and appropriated for specific ritual uses by the elite. Our data and conceptual categories are not yet fine enough to determine how goods circulated.

Equally pertinent, we cannot at present distinguish between different kinds of regional market systems and possible changes in them over time (Barrett 2006; cf. Minc 2006, 2009). We also cannot gauge with any accuracy the impact of politics on how and where trade items moved. At Cerros, for example, participation in a regional network seems to have affected access to lithic products as much as relative location to source materials, given that the site had percentages of Colha imports similar to those found at Chau Hiix, which was closer to the source (Chiarulli 2012). Participation in the network, however, seems in turn to have been affected by the political status of the site, so that the relative quantity of imports at Cerros waxed and waned along with the site's political fortunes (Speal 2009:99). These changes might reflect changing political alliances and competition among rival sites, as speculated by Rosenswig and Kennett (2008). It is possible, alternatively, that regional marketing and exchange systems may have been coterminous with larger territorial boundaries, as has been argued for the Late Classic (Speal 2009; cf. Minc 2009), and that these shifted over time. These are all issues that remain to be resolved. For present purposes, what seems likely is that, while some regionally traded prestige items may have reinforced elite power, they were not the foundation on which it was built. Their limited numbers and possible status as gifts, at least in some contexts, argue against that. They are a concomitant of, but not a cause for, complexity.

Long-distance trade, especially in obsidian, jade, groundstone, spondylus, salt, and ceramics, has been the subject of intense discussion and theorizing in the Maya area. Again, I will focus on lithics, specifically obsidian and jade, as representative of wider patterns of exchange.

Obsidian is perhaps the best known. In the lowlands it was always an exotic, originating in specific sources, whose products can be identified by trace-element analysis. Numerous studies over the years have established the provenience of lowland obsidian artifacts from sources in the Guatemalan highlands (San Martin Jilotepeque, El Chayal, Ixtepeque, San Luis, and La Esperanza) and central Mexico (Pachuca). They have also suggested the probable coastal and overland routes by which objects traveled (Hammond 1972b, 1976; Dreiss and Brown 1989). Obsidian trade is assumed to have been down-the-line (Dreiss and Brown 1989) from center elite to center elite, with objects moving progressively away from the source in a dendritic system that eventually reached most households (Smith 1976; Minc 2006:85). The pattern produced by such systems can be similar to that produced by redistributive exchange, especially as we lack data on how obsidian trickled out to rural settlements. Recent studies, however, suggest that obsidian moved as a trade good, because of where products from different sources are found. While specific sources definitely predominated at different times (Dreiss and Brown 1989; Brown et al. 2004), it is clear that several sources were always available at any given moment within the same area. In the Peten at Nakbe (Hansen 2005:62) and El Mirador (Fowler et al. 1989), San Martin Jilotepeque predominated in the Middle Preclassic, but by the early Late Preclassic at El Mirador at least, El Chayal was more important (Fowler et al. 1989). This switch replicates a pattern that is widespread throughout the lowlands (Nelson et al. 1978, 1983; Nelson and Clark 1990; Brown et al. 2004), but not uniform. At sites such as Tikal, San Martin Jilotepeque materials were still dominant during the Late Preclassic (Fowler et al. 1989). In the northern Peten, then, there seem to have been several sources available simultaneously, which were variably used by different sites. The same thing can be seen on an even more localized scale in northern Belize. There Hammond (1991b:198) reports that Cuello during the Late Preclassic imported mostly Ixtepeque materials, along with lesser amounts from El Chayal and a small mix of other sources. Nearby Colha at the same time, however, showed a significant continued reliance on San Martin Jilotepeque materials, though they no longer dominate the assemblage (Brown et al. 2004:231). These data suggest that no "down-the-line" center had a monopoly on distribution over a whole region. Residents of the lowlands seem to have had some choice in what they got. This situation might conform more to a market model than a redistributive one. Other evidence for elite management of obsidian, such as the location of obsidian workshops in site centers (e.g., at El Mirador; Hansen 1990:209) remains unconvincing in the absence of clear lines of control. Again, we need to sharpen our analytic categories and archaeological correlates if we really want to determine obsidian's role in elite power strategies (see Clark 2003 for further discussion). Finally, even if obsidian was managed by the elite, its importance in the emergence of complexity is moot. While it is found in the Middle Preclassic, its availability increases significantly in the Late Preclassic at a time of state consolidation. In other words, the obsidian procurement system, whatever it was, while present before, was more widely integrated into economies corresponding to already differentiated sociopolitical systems. Of course the importation of highland obsidian from the Middle Preclassic onwards indicates that the lowland Maya were part of an interregional trade network that doubtless served as a conduit for the exchange of information with the Maya highlands and other areas of Mesoamerica. It is this interregional interaction rather than control over the obsidian trade that more likely had an impact on the development of complexity (see Chapter 6, this volume).

A similar story is emerging for jade, which is even more localized to a few sources located in Guatemala and lower Central America. At Cuello INA analysis of a group of jades revealed four known sources, but slightly over half of the objects remained ungrouped (Hammond 1991c:201–2). Potentially, each of these could represent a different source, suggesting the site had access to many different suppliers. A review of the samples by time period (Hammond 1991c:200) shows that during the Middle Preclassic and Late Preclassic several sources are represented, thereby paralleling the situation with obsidian. Jade also shows a similar variability in context. While it is associated with rituals and the elite, Krejci and Culbert (1995) found that it occurred more regularly in small housemounds than large ones during the Preclassic. Again, it seems that we are missing the mechanisms by which this material traveled from source to site to consumer. Like the obsidian trade, the jade trade seems not to have been a catalyst for, but an expression of, elite status.

Distribution Summary

Distinct levels of trade can be distinguished in the Maya area that must have overlapped and intersected in interesting ways. Local, regional, and long-distance goods were all essential to Maya communities, which seem to have been integrally linked from the beginning. If we consider the amount of foodstuffs that were regularly exchanged, they were never completely self-sufficient, even at their most egalitarian stage at the end of the Early Preclassic/beginning of the Middle Preclassic. This interdependence increased as time went on. Trade patterns were complicated and variable, though, and changed over time. Even long-distance trade, which focused on a finite group of materials from specific sources, does not seem to have operated in as straightforward a manner as many of our models presume. Thus, there is variability in the ways that lowland sites, for example, acquired prized highland exotics such as jade and obsidian, possibly even those within the same polity. Similar differences are hinted at in the way local and regional goods moved, though their circulation has been less well explored.

Given this diversity and the lack of specific data on how goods moved (Barrett 2006), it is difficult to assess the role trade might have played in the emergence of Maya elites. In some cases it seems to have been important, in others it did not. For sites in northern Belize like Blue Creek, which straddled the end of a navigable river stretch (Barrett 2004, 2006; Barrett and Guderjan 2006), or Cerros, which commanded a section of coast, trade was probably key in the development of local elites. Rosenswig and Kennett (2008) have argued that it was also important in the positioning of other sites in northern Belize, but in the cases they cite (e.g., Colha, Kichpanha) there were other factors at work, too. In communities where trade was paramount, simple differential access to a wider range of goods might have helped create initial disparities and eventual stratification. The same argument has long been applied to Tikal and other sites strategically placed in the Peten interior (Sharer and Traxler 2006). However, the extent to which trade was a criterion for complexity in most sites remains moot. There is no doubt, for example, that the Colha elite controlled chert production and probably its initial export from the site in the Late Preclassic. The pathways chert products followed in regional trade after that are less certain, though. While they could have been exchanged directly with other centers and redistributed out from central markets, they could also have proceeded along different, less centralized routes. The way they traveled to consumers in neighboring sites was also probably different from the way they traveled to customers farther away, and may have been influenced, as noted, by political (Speal 2009) or other non-economic factors. What we really need to do is model the different levels of trade in a common framework, so we can better evaluate their impact. While it is beyond the scope of this chapter to do so, I would note that Minc (2006) has recently provided just such a model, reviewing the archaeological implications of different market systems in an approach that is more specific than Hirth's (1998) distributional analysis. Suffice it to observe for now that different types of trading systems may have existed at different scales. Thus, even if long-distance trade was structured one way, local and regional trade may have followed separate organizational pathways. Trade at one level probably did influence trade at another, but we should assume neither congruence nor continuity over time. Classically, we tend to presuppose that emerging Maya polities were "locally focused" with only prestige goods crossing boundaries (Barrett 2006:119). This kind of pattern corresponds to Minc's (2006:84) "solar system," where political control and economic interaction are spatially coterminous. Such a system is characterized by poor articulation between neighboring solar systems and sharp discontinuities in commodity flow at their boundaries. However, the data already presented strongly argue that this was not the case from very early on in the Middle Preclassic. Thus, patterns remain to be demonstrated rather than assumed at all levels of trade.

Consumption

Consumption in the Maya area is poorly understood, as it is rarely a direct topic of inquiry. As Pyburn (2008) has reminded us, however, it is an important domain to consider, if we want to understand why incipient commoners decided to accept their status (see also Lohse 2013, Metcalfe et al. 2009, and Clark 2007b). Traditionally, Maya goods have been divided into two broad categories: utilitarian items or basic goods that are found in every household, and prestige or luxury items that were used primarily by the elite. In point of fact many archaeologists have shown this division is not so simple (see Hruby and Flad 2007 for recent discussions). Artifacts can vary in their valuation, as already noted (Flad and Hruby 2007; Clark 2007b; Speal 2009; Rosenswig and Kennett 2008; McAnany 2010). Also, many of the so-called elite goods are found in commoner households as well, just in lesser quantities. Thus, jade, a quintessential prestige item, is found in lowland burials suggesting a range of statuses, particularly in the Preclassic. In 365 burials from Belize, the Peten, and the Pasión area, Krejci and Culbert (1995) noted that the quantity rather than the presence of jade distinguished true elites from others. The same observation applied to shell ornaments and obsidian flakes and blades, though the latter were generally less common than either jade or shell in burials. Furthermore, it was not until the Terminal Preclassic/Early Classic that tombs of the high elite—"royal" burials—are found, with large quantities of objects clearly distinguishing them from everyone else (Krejci and Culbert 1995:103–6). Only, too, in the Early Classic do items such as earflares become restricted to the richest burials (Krejci and Culbert 1995:106, 111). Krejci and Culbert conclude that there were fewer differences among Preclassic burials than there were later on. Burials in small platforms had the same materials as burials in large platforms, though the larger ones generally had the wealthier burials. These patterns confirm that the significant transition for the Maya in terms of elaborate status was not in the Preclassic, when states first arose, but during the 4th and 5th centuries CE (Krejci and Culbert 1995:108, 114), when power perhaps became configured in a whole new way.

Krejci and Culbert's (1995) overview shows that, at the time incipient elites were forming, everyone seemed to have access to the same range of goods, at least for important ritual functions, albeit in different quantities. The similarity in burial furnishings—what people considered appropriate or necessary for the occasion (Krejci and Culbert 1995)—suggests a strong common value system uniting Maya society. While several authors have proposed such a value system existed (e.g., Sharer and Traxler 2006), it is often interpreted, following Marxist arguments, as a political-religious ideology imposed from above. The apparent uniformity in burial practices suggests that on an emic level at least that was not the case. Indeed, one would expect at least some variation between non-elite and elite where a particular "state" religion is overlaid onto folk practices.

Not all items were similarly shared, though. The spouted vessels associated with cacao consumption, for example, seem to occur mostly in elite contexts throughout the Preclassic (Powis et al. 2002), so presumably they were the prime consumers not only of the pots but also of their contents. Consumption of items also changed over time. Thus, at Blue Creek, lithics produced from local materials seem to have been available to the whole community in the Middle Preclassic. In the Late Preclassic, though, they appear mostly in elite contexts (Jason Barrett, pers. comm. 2007). At the same time, in the Late Preclassic almost half of the lithics used at Blue Creek come from Colha. Their finer chert and distant origin might lead us to expect their occurrence in elite rather than commoner contexts. Instead, and unlike locally made tools, they are found throughout the settlement. Clearly, there were different considerations of value involved in consumption that must be disentangled if we are to understand the nature of elite power, a point elaborated below.

EARLY MAYA ECONOMIES AND THE ORIGINS OF COMPLEXITY: AN ASSESSMENT

Review of the evidence on the early economies of the Maya reveals two important points. First is the unsurprising fact that economic conditions were highly variable throughout the area. After all, it is the most diverse region ecologically and geographically in Mesoamerica (Sharer and Traxler 2006). Maya sites could not just adopt a more complex lifestyle from their Mesoamerican neighbors and transpose it wholesale. Nor was one Maya site able simply to imitate another, following the kind of basic model we used to envision for pristine and secondary states. The roots of social differentiation were complicated, differing from place to place and region to region. Certainly, no single economic factor, not even the most popular—control over land/water, control over scarce resources, control over trade—can explain why complexity developed. Instead, if we look at what happened, where it happened, and when it happened, we find different constellations of factors involved at different sites. These may have *supported* the development of complexity without necessarily causing it. For some early centers we can even single out one main factor that might have accelerated this process. However, it would be foolish to assume that other factors, social and religious as well as economic, were not also at work. At Nakbe and El Mirador wetland farm land may have been a premium resource, with access to it giving certain residents an advantage over others. At Tikal trade may have been operative. In Belize, at Colha, a monopoly on chert resources is what finally propelled the elite to power, though social differentiation began earlier, maybe on another basis. The case of Colha underscores, too, that sociopolitical differentiation was variably timed throughout the Maya area. These temporal differences cannot be explained simply in terms of one place lagging behind the next. Colha, for instance, was fully involved from early on in local, regional, and, eventually, long-distance trade and communication networks. Nonetheless, strong status distinctions there, like elsewhere in Belize, did not appear until the Late Preclassic.

This temporal variability underscores what the archaeological record seems to be telling us over and over: people made economic and other choices and they made them repeatedly. These choices in turn constrained their future options, opening up new choices, closing off others. The mobile horticulturalists who first settled at Colha chose to focus on their fields rather than their broader seasonal round. This decision had consequences in the development of both horizontal and vertical differentiation—specialization in different tasks and the emergence of an initial elite. People were also affected by the decisions of others. They were interdependent (cf. McAnany 2010:205–6). Thus, for example, while Henderson (2003:488) does not believe regional elites controlled staple crop production at K'axob, she observes that the development and maintenance of regional political hierarchies would have had consequences for the way K'axob households managed their own economic prosperity (see also Scarborough and Valdez 2009). Henderson's example stresses the point, discussed elsewhere by Lohse (2013; Lohse and Valdez 2004) and Scarborough and Valdez (2009), that all the decisions were not made by the elite. Commoners made them as well. It is the interaction between elite and commoner, strategy and choice that we see played out in the archaeological record (Lohse 2013; McAnany 2010:2). Pyburn (2008) echoes this sentiment, proposing that incipient elites would have had to "advertise" their view of what was desirable to incipient commoners and convince them to accept it. That would have involved more negotiation than coercion (Scarborough and Valdez 2009).

These considerations suggest that at the heart of our enterprise of unraveling complexity lies a question of values. Ultimately, how Maya authority was configured rests on what motivated the Maya—what they valued. What led them to make the choices they did? Economically, specifically, why were certain resources/objects deemed more desirable than others? How did that valuation affect Maya development? While it is impossible to question the ancient Maya directly, we can pry some idea of value from the archaeological and ethnohistoric record. Looking at what was valued and how it was used may give us some ideas on why it was prized and what effect it had, which we can then test against other parts of the record.

From the review of economic factors, it is clear that the Maya valued wetland margins for farming and accessible, open water for drinking. They also prized well-made tools from good-quality materials. We can add to that list items not discussed here, including decorated ceramics and marine resources such as the hard-to-get *Spondylus* and more common conch. They valued certain foods, such as cacao, for which they developed special spouted containers, also valued. Most precious, perhaps, were the jades and "social jades" (Hammond et al. 1977; cited in Hammond 1991c), greenstones used like jade, which were an important part of burial kits and also served in other rituals, as evidenced by caches throughout the Maya world (Krejci and Culbert 1995). I propose that what tied this disparate list together was an underlying value on *labor*—with the meaning here of "work invested." I do not mean this in the traditional economic sense of "value added," though it may be hard for us to disentangle our Western notions from what the Maya thought. As Clark (2007b:27) has pointed out, labor is part of the normal calculus we go through to determine an object's value, which also includes "intrinsic" properties such as raw materials and other "added" ones such as transport distances and skill in crafting. This notion comes to us from John Locke, who inextricably linked labor to our definition of personal property. Indeed, for Locke property is created by the fusion of natural materials with labor (cited in Clark 2007b:28). This new "product" then becomes something to negotiate with and dispose of as the individual wishes—a strategy for acquiring goods and, in the context of state development, power. I doubt the Maya saw it this way. It is unclear to what extent private property—as opposed to group or kin-based ownership—even existed in Maya society. How free the individual was to manipulate commodities or even gifts is thus unknown (for another view of resource ownership see Chapter 10, this volume). Perhaps more importantly, the Maya sliced up their cognitive universe differently than we do ours and the dichotomy of humans *versus* nature that we so clearly perceive was not a sharp boundary in their view (King 1984). The idea of mixing human labor with nature's bounty would not have struck them as producing a fundamentally new product, nor one that could necessarily be appropriated, commoditized, or alienated. Labor, however, was important to them. I have argued elsewhere (King 1984) that it was a key organizing concept at the time of the Conquest and afterwards among the Yucatec Maya, where it was a basis for what I have identified as corporate groups, *tzuculob*. These entities represented small communities or *parcialidades*, *barrios*/parts of a town (Barrera Vásquez 1980), similar to the *chinamit-molab* units of Postclassic highland Guatemala (Hill and Monaghan 1987). *Tzuculob* seem to have been kin-based but not exclusively, as groups had a residential component as well. Members owed their labor to the group, and what was corporately owned was the property that labor produced. While the group controlled this labor force, it would again be a mistake to see labor itself in Western terms as an alienable commodity (cf. Earle 2000). Labor obligations are better viewed as part of a whole system of mutual obligations, including ritual and social ones (see McAnany 2010), that tied group members together. In that sense labor was both a *cargo* or burden individuals bore (King 1984) and a right they expected from others.

The implication of this idea for the rise of complexity is that authority was configured around labor—obligations of labor from commoner to elite and, conversely, from elite to commoner. Okoshi (1995:24; cited in Izquierdo 2004:63) tells us from his reading of Yucatecan texts that the strength of the ruler lay not in possession of territory but in his ability to mobilize labor. Wealth and power were thus directly proportional to the human resources a ruler had access to (Izquierdo 2004:63). These were probably structured along kinship (Izquierdo 2004; Chapter 10, this volume) and *tzucul* (King 1984) lines. The ruler, too, had obligations, however, to take care of his people and to mediate with the gods (King 1984; Izquierdo 2004), "maintaining in equilibrium the forces of nature, making communal life possible" (Izquierdo 2004:63; my translation). These duties were part of his "social persona," or intrinsic identity *qua* ruler (see Chapter 10, this volume). Indeed, Okoshi's (1995) analysis of the Yucatecan terms for governing "recognizes that the Maya concept of governing in the lowlands was 'to care for,' 'to serve' [in order] to achieve harmony between people"

(Izquierdo 2004:64; my translation). This proposition is not entirely new; among Mayanists the idea that the arrangement between elites and commoners had to be reciprocal and mutually beneficial has long competed with the idea that elites simply exploited those beneath them. What I am suggesting is the principle motivating that arrangement. I would go further and suggest that elite and commoner were not the only ones involved in this equation. The gods had their role to play as well. They had their own labor obligations to fulfill, their own burden to bear, which humans helped them achieve through ritual and sacrifice (King 1984).

There is ample evidence from documents that the post-Conquest Maya extended this value to their economy, prizing labor over actual property (Farriss 1984:270–74; King 1984). Indeed, the only land that was privately owned by the Maya in early colonial Yucatan was terrain that had been improved in some way by an input of human labor. That included saltflats and *hoyas*, the moist fertile depressions on the margins of cenotes that are ideally suited to intensive cultivation of cacao and fruit trees. The water sources themselves were owned, too, by the elite (Farriss 1984:180). There was scant surface water in northern Yucatan and considerable labor would have been involved in maintaining water holes and diverting water around them for human needs, such as farming. The remainder of the land was tilled by all members of a community, elite and commoner alike, based on hereditary usufruct rights (Farriss 1984:273). While it was possible to buy and sell pieces of land, these were not undeveloped. They usually comprised *milpa* in its first or second year, or other kinds of fields. As Farriss (1984:278) notes, "one owned what was worth owning, which was not the land itself but the improvements on it." What had value were cleared milpa plots, orchards, houses, henequen plants, and the like. They belonged to the person or group who had done the work, even if they were on community land. What a buyer actually paid for, then, was not the property being sold but the labor invested in its creation. Indeed, the amount of work that went into the property determined its purchase value (Farriss 1984:274). This same principle is reflected in the archaeological list above. Wetland fields and water sources require year-round work; specialized obsidian and chert tools demand a substantial and skilled labor investment; special ceramics represent careful and painstaking detail work; and resources from afar are laborious to acquire. Most of all, jade requires considerable work both to obtain and to carve, as no stone is tougher (King 2003). Of course, labor was not the only value imbued in objects, which often materialized multiple concepts. Jade, for example, carried an importance based on its association with the watery Underworld and its powerful denizens. Even unworked and easy to acquire materials such as stream cobbles or quartz crystals could be important ideological objects. The discussion of this dimension of valuation, however, belongs more properly in considerations of the ideological factors contributing to the rise of complexity (see Chapter 11, this volume). While acknowledging that the several dimensions were probably inseparable to the Maya, here I examine the implications of the value placed on labor.

Given the importance of labor, it is not surprising that it was valued and manipulated economically, and what helped support complexity were things that required work. Thus, the different trajectories we see in different regions of the Maya area resulted in part from differences in the enterprises where labor was locally invested—farming, tool production, or trade. I have argued elsewhere (King 2003) that they also derived from the way work was organized, which affected the choices elite and commoner alike were able to make. I will explore this idea briefly by looking at the distinctive trajectory the evolution of complexity took at Colha. Here, both the timing and the consequences of social differentiation are of particular interest. I will then frame my analysis in term of heterarchy and extend it with observations of other sites, to provide a model for how early states may have developed. I would note that while the initial impetus towards more developed complexity at Colha could be interpreted in a utilist framework, as needs- and scarcity-driven behavior, the overall trajectory, which I am concerned with here, cannot. In addition, as McAnany (2010) reminds us, the fact that pre-capitalist economies were differently construed does not mean that the actors in them never operated out of self-interest or in reaction to externally stringent circumstances.

At Colha the key juncture in the development of complexity is the transition from the Middle Preclassic to the Late Preclassic. It is at this time that the local population seems to have experienced a food crisis. Rising water tables coupled with overhunting created food shortages for local residents, who were faced with either intensifying their current practices or finding what Shaw (1991, 1999) has called a social solution to their problem by exploiting regional trade networks. They apparently chose to do the latter, beefing up their tool production. Indeed, there is evidence from at least one household in the site center of a shift in economic orientation towards greater involvement in lithic production/management at that time (Shaw 1999). Using Arnold's (1993) model of complex development among hunters and gatherers on California's Channel Islands, I have argued that the chertworkers at Colha were in a unique position to capitalize on the crisis. They had the specialized knowledge, skills, and materials to produce quality stone tools. It is likely they also owned the means of production, that is, the workshops and even the quarry sites where blanks were made, as these would fit into the category of resources "improved" by human labor. They were thus in a position to divert goods and wealth to their own ends in political economic parlance (cf. Chapter 10, this volume, on entrepreneurs). Alternatively, one could say they fulfilled their obligations to the community by using their skilled labor to bring in needed supplies. In short, they were able to dominate the burgeoning regional trade in foodstuffs and lithics at the site and to establish themselves in the center, from which they controlled production. In the Late Preclassic, then, the chertworkers *were* the elite at the site (King 2003; King and Potter 1994).

Their power did not last into the Classic, because the organizational requirements of lithic production coupled with outside forces worked against them. In the Early Classic incursions by powerful neighbors from the Peten, suggested by evidence at several sites (Pyburn et al. 1998), disrupted regional trade patterns and political stability. Many northern Belizean centers suffered, including Colha, as witnessed by their reduced and often ephemeral Early Classic occupations. While many sites recuperated and rose again to prominence in the Late Classic, Colha did not. In part, people probably got used to relying on other lithic resources, which, as seen, were already being exploited. In part, too, the organization of lithic manufacture has a centrifugal effect that is hard to counter. As Epstein (1990) has pointed out, one or at most a few individuals can handle all stages of lithic production. Thus, lithic household groups would tend to be informally organized, something that is reflected in the Late Classic settlement pattern visible on the Colha surface, where informal household groupings (Ashmore 1981) predominate. These types of groups have been equated by Wilk (1988) with loosely organized multifamily units, who are semi-independent economically (King 2000:148–52). In their Late Preclassic heyday the chertworkers at Colha dominated important resources and labor-intensive trade items, so they were able to continue in their pivotal and privileged role. They could even centralize production and mobilize their members to work in a two-stage process, albeit mostly in parallel and redundant capacities. When times changed and trade was disrupted, the resources they controlled were no longer as critical. They were not then in a position to translate their labor to dominate other venues such as farming. To do so would have required them to transcend their semi-solitary status and reorganize to muster more of a family workforce than might have been at their disposal. They probably would have been loath, as well, to give up their signature specialization. Indeed, as McAnany (2010:199–252) points out, working a particular material and producing a particular craft product is a key part today (and probably in the past as well) of a Maya craftperson's identity, even when the product and the activity themselves do not provide substantial revenue or other rewards. It *is* who they are. For the chertworkers at Colha, the problem may have been compounded by a lack of easy access to land. While they may have owned quarries, it is likely that much of the available land, especially the most productive, was already being farmed by others. As a result, chertworking families could no longer serve to renew the ranks of the elite. At the same time, the established elite, while retaining their position in the community, may not have been able to advance any further. Interestingly, chertworkers remained on a par economically and socially with other Colha commoner residents, including intensive farmers, during the Classic (King 2000:143–48). Apparently, the labor value of their product still gave them a certain cachet.

In terms of a heterarchical model of complexity, Colha's trajectory from Late Preclassic through Early Classic is an example of what Crumley (2003) has called "hyperhierarchy" and its consequences. She uses this term to describe societies that are able to consolidate power and merge "distinct hierarchies (e.g., religious, political, economic) into…hypercoherence" (2003:138), a term she borrows from Flannery (1972). Such a society, for example, was the Roman Empire. These kinds of hierarchies work well for decision-making, as there is a clear chain of command. However, they are less flexible when adapting to what is called "surprise" or chaos in self-organizational terminology, that is tensions/events that are beyond their control. In those situations, heterarchical structures, which rely on multiple lines of information and are flexible to adapt, thrive better (Crumley 2003). I propose that the unique combination of circumstances that put the chertworkers at Colha in the catbird's seat at the beginning of the Late Preclassic promoted hypercoherence at the site. It seems clear that political, economic, and religious hierarchies were merged at that time, if we remember that chertworkers not only lived in the center but participated in ceremonies there (Potter 1992; King and Potter 1994). This hyperhierarchical organization made the elite at Colha relatively inflexible to respond to a prolonged economic and political crisis at the onset of the Early Classic. Their inability to react was subsequently aggravated by the organizational constraints of lithic production itself, as noted, which made recovery difficult.

This same pattern can be discerned at the end of the Late Preclassic in the Peten. Early social differentiation at sites like Nakbe and El Mirador was probably predicated, as discussed, on access to prime agricultural land. This resource would most likely have been owned because it would have required continuous labor, even in the absence of intensive strategies, to produce the multiple crops per year that were possible. Ownership of this land would thus have provided early elites at these sites with the impetus chertworking did for Colha's elite, albeit earlier. The organizational requirements of farming would have favored larger labor pools than chertworking (Epstein 1990; King 2000:148–52), initially of kin, who were reciprocally obligated to help with the work. The lack of water on the Peten plateau may have precipitated matters by constraining the mobility of the population as it grew in the Middle Preclassic, putting pressure on resources and exacerbating the differences between those who had access to good land and those who did not. One result may have been an extension of reciprocal obligations from kin to non-kin, including affines (Chapter 10, this volume), or from near kin to more distant (Izquierdo 2004) or even fictive kin (Chapter 10), thereby setting the stage for the development of a true social hierarchy.

The fact that these sites grew to hyperhierarchy is suggested by the sheer scale of monumental construction and the apparent coherence between their religious, political, and economic sectors. The accelerating environmental crisis during the Late Preclassic, combining both changes in climate and their own failure to curb erosion, would have precipitated an organizational crisis. Such a "surprise" is precisely the kind of problem hypercoherent systems are least able to solve (Crumley 2003; see also Flannery 1972). Despite the size of the farming labor pools, there was nothing to turn that labor to. With the disappearance of the perennial wetlands and open water (Dunning et al. 2002; Beach et al. 2006; Beach et al. 2008) these sites lost their prime attractiveness, thereby perhaps impelling some of the population movements that caused such severe repercussions in Belize. Nakbe seems to have been largely abandoned after this time, and while El Mirador was reoccupied in the Late Classic, it never regained its former glory (Hansen 2005). At other Peten sites, such as San Bartolo, comparable problems led also to abandonment at the end of the Late Preclassic (Thomas Garrison, pers. comm. 2007). Not all the Peten centers succumbed to this crisis, however. Others, like Tikal, which were perhaps more heterarchically organized and had other strings to their bows (e.g., tool production and trade), were able to weather the difficulties. Indeed, in the void left by the demise of its principal rivals, Tikal was able to flourish, achieving unprecedented heights of power in the Early Classic. Concentration of water management in the hands of the elite (Scarborough 1993, 1998), following the depletion of natural water resources, would have helped intensify social stratification there and created the conditions for Tikal's Classic rise.

A question remaining, however, is why Maya states in general never again seem to have achieved the level of hypercoherence they did in the Late Preclassic. While Crumley (2003) has argued that a certain level of hyperhierarchy hampered states in the Late Classic and helped precipitate the infamous Collapse, economic, political, and religious structures were not as congruent then as they were early on (King 2000). Tikal, for example, may have succumbed at the end, but it was able to recuperate from major political blows during the mid Classic and achieve considerable Late Classic prominence. The same relative flexibility can be seen at other sites.

Two factors may help explain these patterns. First, population in the Late Preclassic was sparser and may have been easier to control and cohere, though not everywhere, as some communities appear to have remained more independent (Scarborough and Valdez 2009). Networks between sites might also have been easier to maintain, as there were comparably fewer of them. Increased demographic pressure in subsequent time periods may have promoted increased competition and more heterarchical structures for survival (Leslie Shaw, pers. comm. 2007). More numerous resource-specialized communities would also have provided a strong alternative economy that supported hinterland populations through the vicissitudes experienced by the large urban centers and hindered centralized control (Scarborough and Valdez 2009). Second, the very nature of the Maya value system may have mitigated against hypercoherency, certainly economically. Placing a value on labor rather than on tangible assets such as land or objects leads to varied results (King 2003). Thus, a piece of land worked for milpa may rise in value, but what is it worth the next year when it lies fallow? Different activities require differential investments of labor and different types of labor organization. Variable inputs of labor will result in variable values placed on the fruits of that work, but this will not produce a straightforward ranked system of products, because of the way work is structured. As in the case of the Colha chertworkers, the actual organization of labor will affect how much of an impact the product of that labor will have on the larger society. Thus, a productive process that involves many hands and can easily be centrally controlled, such as agriculture, will lead to a different production and distribution system than one characterized by semi-independent labor, which is harder to harness. An emphasis on labor, then, by its very nature calls forth heterarchical structures.

In the Late Preclassic smaller populations and intensive exploitation of single resources may have been able to override the heterarchical tendencies of a labor-based system. In some cases, the enterprise in which labor was invested and how it was structured might even have *promoted* hierarchy. This factor may help explain the unparalleled size of the early Peten sites. As cross-cultural studies tell us, access to and control over land is one of the most stable ways to promote and ensure sociopolitical stratification. Ownership of the work-improved lands in the central Peten resembles hereditary property/tangible asset ownership elsewhere in the world. As much or more than ownership, however, mobilization of labor on a large scale, first from near kin, then from extended kin and even non-kin, probably allowed a more typical hierarchical pattern of social relationships to develop. That does not mean that elites "controlled" this labor in a classic Western economic sense, at least initially, but rather that they had access to it and could mobilize it in return for upholding their part of the bargain. As time went on, naturalization and perpetuation of authority, for instance through monumental construction (McAnany 2010:141–57), may have changed the initial elite to non-elite relations to a more permanent form of subjugation, and perhaps even a different mode of production (Sharer and Traxler 2006:180–82). However, mutual labor obligations and reciprocal duties would still have ensured that persuasion was an important factor (Scarborough and Valdez 2009), even at the most centralized sites. Thus, while early hypercoherence in this area resembles that found in similar, agrarian-based early states around the world, it had its own unique form. Disruptions at the end of the Preclassic led to a reconfiguration and during the Classic a rising population furnished enough of a brake that the labor-based system's innate heterarchical tendencies could not be surmounted. Who is to say, too, that Classic peoples did not remember the disasters that befell their ancestors? They may have preferred to diversify rather than put all their energies into fields that had never regained their original fertility.

I would close with two points. First, we cannot hope to understand the Maya if we do not leave room in our models for variation over time and space. I have tried to demonstrate here that a heterarchical rather than a hierarchical view of complexity allows for just this kind of flexibility. Second, if ever we hope to recover traces of non-Western and pre-colonial organizations, the Maya states are good candidates. As Pyburn (2004) has pointed out, our ethnographic and historical models are otherwise tainted by colonial and other influences that have inevitably infused Western biases into the record. We should be prepared, then, to encounter seriously different value systems and different structural configurations as we examine the more remote past and take them into account. McAnany (2010) has shown us one such path towards doing so in discussing Maya economies over time in their inextricably embedded social, political, and ritual contexts. The model proposed here is another attempt to do so, restricted here to the context of the developing states. Linking a value placed on labor with a heterarchical organizational structure, it is perforce speculative. It is also inevitably based in part on biased colonial documents, from which I have tried to glean the subtext. As McDavid (2007:2), citing philosopher William James, notes, however, "theories provide instruments, not answers." She adds that, "our work must be evaluated as less a solution than as a program for more work." In that spirit, I offer my model not as the last word but as a first step towards understanding the early prominence of a truly remarkable group of people.

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10

Middle Preclassic Maya Society: Tilting at Windmills or Giants of Civilization?

MARCELLO A. CANUTO

In order to become the master, the politician poses as the servant.

—Charles de Gaulle

Society is a masked ball, where every one hides his real character, and reveals it by hiding.

—Ralph Waldo Emerson

INTRODUCTION

Among the greatest challenges of the study of Formative period (2000 BCE–200 CE) Mesoamerica is the explanation for the causes of social complexity. It is by now a commonly held notion that by the Late Formative period (ca. 400 BCE), there existed a handful of coeval regional states in Mesoamerica (Grove 1981a). In the specific case of the lowland Maya area, by 400 BCE, its inhabitants were living in large cities (such as Cival and Nakbe) that functioned as regal centers from which an *ajaw* (holy lord) governed a centralized regional state.

In general terms, this period saw the development of social interactions bespeaking institutionalized power differentials not only between groups but also within them (Love 1999b; see Mann 1986). Recent research now demonstrates that institutions of formal power in the Maya region date to as early as the Late Formative (henceforth, when referring to the Maya region, the preferred term *Preclassic* will be used) period (Estrada-Belli 2006a; Hansen 2005; Love 1999a; McAnany 2002; Saturno et al. 2006, among others). Nevertheless, evidence for precocious complexity *per se*—such as the existence of and justification for "natural lords" (Roys 1941:649) dating to periods earlier in time than scholars originally thought—renders the causal processes of that complexity no less nebulous. In fact, evidence of precocity only forces scholarly focus onto even earlier and less understood periods of time. Consequently, to interpret the developments of the Late Preclassic period in the Maya area, this chapter must focus on the developments that preceded it—that is, those dating to the Middle Preclassic period (1000–400 BCE).

This task will prove challenging for the simple reason that current data from the lowland Maya area are far more limited and patchy than what has been gathered in the rest of contemporaneous Mesoamerica. Given that nearly half a century of research have not sufficed to forge consensus among scholars as to how and why the first regional states emerged elsewhere in Mesoamerica (Blomster et al. 2005; Flannery 1968; Flannery et al. 2005; Stoltman et al. 2005; Neff et al. 2006a; Neff et al. 2006b; Schele 2000), it would seem a fool's errand, or more romantically, a quixotic quest to attempt an interpretation of how social complexity arose in the Maya area given the current state of knowledge. However, as pointed out by Clark (2007a), much of the data regarding the Maya area is as robust (or weak) as that which hails from Oaxaca or the Gulf coast. It is under that banner that this chapter tilts at the Middle Preclassic Maya in hopes of finding giants of a later civilization rather than mundane windmills.

In any event, regardless of regional focus, any diachronic study of this kind is prone to suggesting that an early manifestation of some later pattern functioned as its precursor. To avoid McAnany's "leading assumptions" (2002:230), local developments must be understood *sui generis*—as logical outcomes of and wholly relevant to the local environment in which they occur and without recourse to their eventual function as prerequisites for later developments. For instance, the custom of burying kin members below a residential floor during the Middle Preclassic period (e.g., McAnany et al. 1999) should not be assumed to represent the precursor of later Classic-period rites of dynastic ancestor worship. Although the Middle Preclassic burial ritual might prove relevant to later institutions of statecraft, its initial manifestation might have carried very different meanings for its participants. To assume otherwise would be to succumb to the allure of teleology.

THE STUDY OF EARLY COMPLEXITY AND MESOAMERICA

For the Maya lowlands, the study of the rise of ancient complexity must explain the alchemy that transmutated a particular blend of social practices, developed in sedentary subsistence farming communities, into ideologies of hereditary inequality and divine rulership. Specifically, this chapter addresses the potential drivers of social complexity in the lowland Maya area of the Preclassic period by focusing on the social relations that shaped the everyday lives of this area's inhabitants. In other words, how did social forms of identity, interaction, and organization of the Preclassic Maya condition the development of socio-political complexity?

Several attempts to address these questions for the southern lowland Maya provide useful information and models (Adams 1977; Grube 1995; Powis 2005). Nevertheless, the heavy theoretical lifting on the question of socio-political complexity in early Mesoamerica has been shouldered by research in areas outside the lowland Maya area, mainly Oaxaca (Blanton et al. 1996; Blanton, Kowalewski et al. 1993; Flannery 1968, 1972; Marcus and Flannery 1996; Sanders and Nichols 1988; Spencer and Redmond 2004), the Pacific coast (Cheetham 2006; Clark 1997; Clark and Blake 1994; Clark and Pye 2000a; Love 1999b; Matheny 1986a), and central Mexico (Sanders 1962a, 1968; Sanders, Parsons et al. 1979; Sanders and Price 1968). Research in the Gulf coast (Clark 2007a; Cyphers Guillén 1996, 1997b, 1999; Diehl and Coe 1995; Love 1999b; Symonds 2000) and Honduras (Cummins 2007; Joyce 2003; Joyce and Henderson 2001) have also contributed to the interpretation of the early rise of complexity in Mesoamerica. It is therefore only logical that this chapter looks to the models and research from these areas first.

Research in Mesoamerica has adopted several distinct paradigms to model socio-political complexity: culture ecology, neo-evolutionary processualism, and agency theory. Furthermore, although these models are derived from regionally focused field research, they are proposed as broader explanations of the pan-Mesoamerican phenomenon of the rise of complexity during the Formative period. Since such models are not inherently hobbled or hedged by their proponents as explanations for a particular time and place, their applicability to the Maya area of the Preclassic period can be assessed.

Culture Ecology: Fruitful Complexity

Derived from models applied to the Near East or South Asia (Adams 1966), culture ecology models in Mesoamerica sought explanations for complexity in the human-nature interface, especially as it relates to subsistence adaptations. The natural conditions found in Mesoamerica, such as variable soil fertility, water supply, stone tool technology, and the absence of pack animals, establish baseline delimiters of the environment's carrying capacity. Only certain Mesoamerican environments—generally identified as the highlands—were thus pliable to intensive forms of agriculture and only in those did human societies have the chance to sustain complex forms of socio-political organization.

In the case of the valley of Mexico, irrigation was a necessity given that rainfall and permanent water sources were sparse and insufficient. In fact, the environmental conditions of the Basin of Mexico were considered so similar to those of Mesopotamia that the hydraulic hypothesis used to explain complexity in the Fertile Crescent was thus applied (Sanders 1962a, 1968, 1973; Sanders and Nichols 1988; Sanders et al. 1979; Sanders and Price 1968). Specifically, this model suggests that irrigation and trade were required to coalesce a state-level society defined by dense populations and surplus management.

Irrigation alone did not prompt higher orders of social organization, however. The region's ecological diversity also induced a level and intensity of non-local trade and communication that required the development of certain organizational principles of its inhabitants. Considering this ecological system, the agricultural adaptation required, and the concomitant development of trade-exchange networks, the long-term human response would have been the development of small city-states. Over time, with continued exchange of needed resources, the Basin of Mexico became the center of large conglomerations of symbiotically related city-states.

For the Formative period in Mesoamerica's lowland regions such as the Maya and Olmec areas, however, this paradigm has been applied in relatively simplistic ways (see Sanders 1962b, 1963, 1973, 1977). Since lowland environments do not follow the precepts of the highlands, the development of the Olmec and Preclassic Maya were not interpreted as evidence for socio-political complexity (see below for more detailed discussion). Recently, more sophisticated applications of this paradigm to later Classic-period lowland Maya society have proven fruitful. There has been a growing appreciation for how certain lowland natural resources, such as water (Davis-Salazar 2003; Lucero 2002, 2006; Scarborough 1998) and land (Dunning and Beach 1994; Fedick and Ford 1990; Ford 1990, 2004), were limited and patchy. Although the Maya lowlands do not present conditions highly analogous to those of arid regions throughout the world, the uneven distribution of certain resources provides some justification for considering the role of a managerial class administering and redistributing them.

Similar studies have been recently applied to the Olmec region (Cyphers and Zurita-Noguera 2006a) in an effort to explain the rise of San Lorenzo as uniquely precocious. It is therefore possible to consider that culture ecology could prove relevant to the interpretation of Preclassic lowland Maya complexity. Any new deployment of this paradigm, however, would have to guard against the reductionism of past applications, which dismissed the Maya lowlands as too impractical for autochthonous complexity.

Neo-evolutionary Processualism: It's in the System

A systems approach proved quite useful for the interpretation of early Mesoamerican complexity. Framed by Flannery (1972), this paradigm would be used to interpret the development of complexity in the Oaxaca valley from hunter-gatherer to Monte Alban's militaristic expansion (Flannery 1976, 1986; Flannery and Marcus 1983). The systems approach was established to argue against prime mover models that pinned full responsibility for complexity on a single factor, such as population pressure, warfare, or irrigation.

The systems approach, alternatively, was a multi-variate analysis that identified several relationships between independent aspects of cultural systems such as subsistence technology, food supply, population levels, and exchange systems. Connected through feedback loops, changes to one aspect of society would be met by responses and changes in related aspects of society. In this paradigm, the impact of several independent socio-environmental variables would have triggered evolutionary mechanisms such as "promotion" that encouraged processes of system centralization, that is, socio-political complexity.

These models emphasize materialist causes for change—that is, those vaguely defined socio-environmental variables. The impetus for change is seen as external to the system, suggesting that socio-political complexity would fail to develop in an otherwise homeostatic system. Early applications of this paradigm discounted human agency as relevant to systemic change.

In its more sophisticated form, systems theory recognized the impact of individual agents on long-term social processes (Clark and Blake 1994; Cowgill 2000; Flannery 1999; Flannery and Marcus 1976a). The models note that within systems of inter-regional exchange, increasing population, and changing subsistence technology, there exist individuals whose "actions were based on empirical observations, interpreted in light of a coherent body of logic… [that made] sense as a series of related and internally consistent responses based on the same set of underlying principles" (Flannery and Marcus 1976a). Therefore, within the processes of system centralization, certain individuals played important and archaeologically visible roles in the promotion of cultural systems.

Archaeology has traditionally viewed these individuals as "agents of process," affecting change only through the manipulation of material goods (i.e., wealth) (Blanton et al. 1996; Earle 1997). Seen in another way, big men are agents of change insofar as they attempt control of staple or wealth finance systems. In the ethnographic record, it is clear that big men are not so limited (Godelier and Strathern 1991); rather they can command allegiance and rise to prominence by many means other than the control over the production and distribution of material goods (Harrison 1987; Lindstrom 1984; Modjeska 1982). Some big men enact non-materialist strategies, such as claiming to "command attractive explanatory systems" (Lindstrom 1984:284)—that is, an ideology—that can prove mutually advantageous for leader and follower.

For the Preclassic lowland Maya, the materialist systems approach has proven useful and commonly (though not thoroughly) applied (see discussion below). Furthermore, there is some new evidence relating to the adoption of a new subsistence adaptation—widespread maize farming (Neff et al. 2006c; Pohl et al. 1996; Pope et al. 2001; Rue et al. 2002; Wahl et al. 2006)—that would have wrought major environmental changes to the lowland area. Systems theory would suggest that changes consequent to the widespread adoption of maize farming would trigger several feedback loops involving population levels, surplus management, and tool production that could have triggered evolutionary mechanisms that led to system centralization. Furthermore, heads of household involved in the management of new stores of food surplus could have become agents of change, centralizing agrarian communities through the control of this staple good.

Agency: *Ecce Homo*!

The dissatisfaction with the processualist "individual" led to the search for more nuanced approaches to ancient agency. A series of models that focused on forceful agents of the past were proposed (Clark and Blake 1994; Hayden and Gargett 1990; Hayden 1995; Rathje 2002). Variously termed as "aggrandizers," "accumulators," "strategizing individuals," "coalition-builders," or "emergent elites," these individuals were seen as capable of altering social relationships through the manipulation of material culture and ideology.

In the case of Mesoamerica, these individuals likely represented the structurally favored "family leader" or "shaman." These individuals—to be referred to here as *entrepreneurs*—deploy tactics to promote and then sustain relations of prerogative between themselves and others. The model imbues the entrepreneur with the strategic foresight to instigate the production of "unusual quantities" of specialty items, such as *chicha*, for events of conspicuous consumption and public munificence that reproduce (but also modify) local social relations. Most equivalent to the ethnographic "big man," these entrepreneurs engaged in a Maussian gift-giving dynamic (Mauss 1954) that altered social relations and valuations by influencing the habits of production.

Through events of concerted social action—such as feasts (Dietler and Hayden 2001), production of specialty items, the construction of public buildings (Rathje 2002), and sporting events (Clark and Blake 1994; Hayden and Gargett 1990; Hill and Clark 2001)—entrepreneurs sought local integration and consolidation of their emergent status. These activities also provided contexts for continued interaction or competition between different big men (Brumfiel 1992; Brumfiel and Fox 1994). Such elite or factional competition could spur further centralization, surplus-production, and social distinction.

Entrepreneurs thus created conditions of both material and ideological indebtedness, fealty, obligation, and competition that resulted in conditions of inequality among members of a single social group. An obvious consequence of material production being so induced is that the archaeological record of such societies exhibits an increase in portable exotic goods, public spaces, and communal buildings: "the range of prestige technologies, is constrained only by the materials available, the ingenuity of the craftsman, and the degree of power that aggrandizers are capable of acquiring" (Hayden 1995:258).

A failing of these practice-oriented approaches is that these "agents" are imbued with such discretionary knowledge that their eventual development into an elite seems inevitable. Agents are privileged with competences in highly specialized practices that are themselves learned and are therefore to be regarded as social products rather than as innate individual capabilities. In other words, this model for the development of early complexity raises the question of how do "special agents" learn and then enact their practices? Should those practices not be accessible to anyone within the social group that produces, abides, and provides the social contest for them—why one agent and not another? How do specific individuals develop any competence at all in the deployment of the society-changing strategies above and beyond "the multiplicities of players [pursuing] separate interests, in divergent ways" (Clark 2000b:109)?

For the Preclassic lowland Maya, evidence for the repeated and cumulative action of such agents is visible in the regional distribution of ceramic fine wares (see discussion below). The widespread distribution of fineware serving vessels suggests that the inter-group prestation exchange was regional in scale (Clark and Cheetham 2003). Perhaps through mechanisms of "competitive generosity," specialty items were traded far and wide as group leaders competed with one another in efforts to consolidate their intra-group position of prominence.

Summary

Several broad paradigms have been developed for Formative Mesoamerica, culture ecology for the Basin of Mexico, neo-evolutionary evolutionism for Oaxaca, and agency theory for the Pacific coast. For the lowland Maya area, however, no distinct model has been developed. Rather aspects and elements of these paradigms have been applied to the Maya lowlands with some degree of success. Nevertheless, a comprehensive explanation for the rise of complexity in the Preclassic lowland Maya area is missing. What follows here is a review of the application of these paradigms to the Preclassic Maya lowlands.

INITIAL VIEWS ON EARLY COMPLEXITY IN THE MAYA LOWLANDS

Over the past half-century of research in the Maya lowlands, it has become clear that the character and complexity of the Preclassic period has been underappreciated. The absence of direct research on the Preclassic periods led to generalizations of cultural development drawn from culture ecology or neo-evolutionary theories that simplified if not reduced the more than 1000-year Preclassic period history into the general categories of "tribal" or "egalitarian society." While these attributions might not be entirely inapplicable or inaccurate, they do suffer from a degree of imprecision that renders them impractical *per se*. However, the first attempts to characterize the Preclassic Maya provide some clues as to how best to proceed with the study of this period.

A New Horizon

Evidence of the Preclassic lowland Maya was recovered in the earliest phases of formal research in the area. For instance, the Carnegie excavations of Str. E-VII sub of Uaxactun (Ricketson 1937) revealed early evidence for Late Preclassic monumentality and socio-political complexity among the lowland Maya. Moreover, as a consequence of this work, Smith (1955) was able to provide researchers with a clear and ubiquitous marker of Preclassic Maya occupation—the red monochrome ceramics associated with the earliest contexts at Uaxactun. Though their absolute dating remained unknown, Smith called the red monochrome ceramics found in the earliest stratigraphic contexts at Uaxactun (underlying masonry structures) *Mamom*, and those in contexts associated with the buildings, *Chicanel*.

Furthermore, Willey and collaborators (1965) at Barton Ramie in Belize developed a comprehensive sequence of Preclassic period Maya society that supported and then supplemented the initial work by Smith (1955) at Uaxactun. They recognized a prevalence of red-paste wares in the stratigraphically early contexts of several other Classic Maya centers, namely Xunantunich (then known as "Benque Viejo") and San José (Thompson 1939, 1940), Barton Ramie (Willey, Bullard et al. 1965) and San Estevan (Bullard 1965). Eventually, even earlier ceramics were encountered at Barton Ramie (Early Jenney Creek phase; Willey, Bullard et al. 1965) and at Tikal (Eb phase; Coe 1990). By the late 1960s, therefore, there was already good evidence that settlement during the Middle Preclassic period would prove substantial. In fact, McAnany (2004:3) notes that the Preclassic period discoveries of these early projects were comprehensive enough in Belize to demonstrate a settlement pattern favoring estuarine and wetland environments that subsequent research later confirmed.

Soon after, other research projects recovered material related to the Mamom phase or earlier. In the southwestern area of the Peten, research at the Classic centers of Seibal (Sabloff 1975; Willey 1970b) and Altar de Sacrificios (Adams 1971) recovered evidence of the Preclassic period occupations that appeared to be even earlier than Mamom (and therefore contemporaneous with the Early Jenney Creek and Eb ceramics). The ceramic phases dating to these occupations were named Xe (Altar de Sacrificios) and Real Xe (Seibal) and attributed to 900–600 BCE (Willey 1970b:318; 1973a). A few years later, research in the highland Guatemalan region of Verapaz recovered material similar to these lowland Xe traditions (Sedat and Sharer 1972). These discoveries were further complemented by work in the Rio Bec region at Becan, Chicanna, and Xpujil (Adams and Culbert 1977:16) that also recovered examples of early ceramics of the Mamom tradition.

Tribal Ecology

Despite much of this research, Sanders and Price (1968:111) suggested that during the Middle and Late Preclassic periods (the Mamom and Chicanel ceramic phases), Maya society exhibited tribal forms of organization—that is, "sedentary agricultural settlements," "lacking community stratification," and maybe "socially autonomous" (1968:110). This blindness to the data available likely results from an unerring commitment to a culture ecology model that had little room for autochthonous complexity in the Mesoamerican lowlands.

To explain socio-political complexity in this region, Sanders invokes Vogt's (1961) religious participation model in which lineage heads reserved control over certain areas, serving as regulators of the economic system. This complexity, however, would have been limited by the distribution of fertile "intensifiable" soil types (Sanders 1977); their patchy distribution led to clustering of the population in certain areas of the lowlands that were to eventually host the largest of Classic Maya centers (such as Tikal and Calakmul).

Despite this hierarchy-inducing ecological variability, however, the Maya lowlands still presented a much more constant landscape than do the Mesoamerican highlands (Sanders 1973). According to Sanders, therefore, the Peten's relative ecological evenness inhibited the establishment and development of political units larger than small ceremonial centers. Although relatively richer, the few areas where soil would have allowed the production of greater food surpluses did not gain enough of an advantage over the peripheries to wield stable and long-term control (as in the case of highland Mexico). Rather, lowland areas were seen as having managed to support only small ceremonial centers surrounded by agrarian hamlets of limited population. Furthermore, whatever developments might have occurred in the lowland regions were secondary to and derivative of lowland-highland interaction

At least, now, it can be averred that research on the question of the Preclassic Maya since Sanders and Price's (1968) initial evaluation has proved them mistaken (Clark and Cheetham 2003; Clark and Hansen 2001; Hammond 2000; Hansen 1998; Saturno et al. 2006; Sharer and Traxler 2006). It is clear that more complex systems of socio-political organization—paramount chiefdoms or early states—had developed by the Middle and Late Preclassic periods. Nevertheless, the question of the Peten's varying fertility provides an important factor to consider when interpreting the distribution of the earliest concentrated settlements in the lowland Preclassic Maya area.

Land-hungry Peasants

Considering the notable presence of Preclassic period material throughout the lowlands, Adams's *Origins of Maya Civilization* (1977) provided the first synthetic consideration of the Preclassic period Maya. By that time, there was a consensus among scholars that the excavations at Tikal, Altar de Sacrificios, Uaxactun, Becan, and Dzibilchaltun had convincingly demonstrated the existence of socio-political complexity in the Late Preclassic Maya lowlands. In fact, Hammond (1977b:65) made the point that "our relatively small exposures of and samples from Middle Preclassic levels have led to a failure to realize that the increasing complexity of Maya society which we now accept for the Late Preclassic may have begun more than half a millennium earlier."

Growing evidence of Middle Preclassic (1000–400 BCE) lowland settlement triggered debate over the origins of these initial settlers. The Early

Preclassic (2000–1000 BCE) predecessors were regarded as pioneering settlers of either Maya or Mixe-Zoquean stock (Lowe 1977:247), sparsely settled (Coe 1977:195) throughout the lowlands. This vague information so paled in relation to the Early Preclassic evidence from neighboring areas that the "absence of Early Preclassic occupation in the Petén and Yucatán began to look exceptional" (Hammond 1991d:5).

Since the Early and Middle Preclassic periods were initially characterized by several distinct ceramic traditions—Xe at Seibal, Swasey at Cuello (Hammond 1977b:50), and Eb at Tikal (Culbert 1977:29)—it seemed possible that the Early Preclassic lowland landscape was populated by different groups. For instance, some (Adams 1970; Hammond 1977b:61) suggested that Xe and Swasey phase occupations in the Petexbatun region and in Belize developed as a consequence of hunter-gatherer groups following aquatic and near-riverine resources. In the case of the Xe occupation, the original settlers could have come southward from the Gulf coast, and the lower Grijalva and Usumacinta regions. Alternatively, Willey (1977:386) suggested that the Xe ceramic complex derived from highland ceramic traditions (see Sharer and Gifford 1970).

Independent of these questions of "origins," however, the Middle Preclassic Maya (of whatever ceramic stripe) were generally viewed as developing a progressively more specialized adaptation to the lowland tropical region they were colonizing. Though the Xe, Eb, and Swasey sites were few, they suggested to Willey that Middle Preclassic Maya lived in dispersed small farming villages composed of perishable residences built either directly on the ground or on slightly elevated platforms with little or no public architecture. They would have formed "simple, egalitarian societies" (1977:387).

The Middle Preclassic colonization was rapid and led to "widely dispersed and meager hamlets" (Puleston and Puleston 1971b:335). This rapidity was largely impelled by the settlers' adoption of a land-extensive farming system that resulted in an ever-expanding frontier (Adams 1971:155). As prime estuarine regions filled with settlement, population pressure (either in the form of other migratory settlers or as descendent groups, or both) would have triggered inter-community competition, if not struggle (Rice 1976b). Given a sociopolitical system with little regional integration, the withdrawal of groups to uninhabited areas was likely a favored option. This secondary exploitation created a two-level settlement hierarchy (Hammond 1977b) and triggered a series of new subsistence adaptations in response to the changes in the environment being exploited by these Preclassic *peteneros* (Puleston and Puleston 1971b). Overall, the Middle Preclassic Maya were modeled as forest agriculturalists living in decentralized autonomous communities prone to "local cleavages at the expense of regional organization" (Sahlins 1968:31).

Resource-deprived Lowlanders

The Middle Preclassic period was thus understood as "a spiraling interaction continuum of gradual population growth, community enlargement, and tribal segmentation" (Ball 1977:123). Although population growth, *per se*, was not always directly recognizable in the sparse evidence at hand, the application of a general culture ecology (see Boserup 1965) model to explain differential population growth throughout the lowlands during the Middle Preclassic period was suggested (Ball 1977; Sanders 1973, 1977; Webster 1977). Whether or not accepted as sufficient explanations, these studies did establish the notion of a "Central Zone" to identify (if not explain) the existence of an area within the Maya lowlands where there was a higher concentration of large centers.

Those scholars who went beyond culture-ecology and behavior-driven-by-soil-types models adopted more complex, multi-variate models that included an appreciation for socio-economic adaptations. These approaches did not discard the notions of population pressure, differential carrying capacities, and resource availability as relevant to the rise of complexity in the lowland region. However, they introduced various other socio-environmental factors such as regional exchange (Rathje 1971, 1977) and agricultural intensification (Netting 1977; Rathje 1972; Sanders 1977) as germane to the Middle Preclassic period. The main thrust of these models was to explain the rise of large Classic period centers, such as Tikal and Calakmul, in the "Central Zone." This area was understood as presenting a series of environmental advantages (soil fertility) and disadvantages (absence of critical resources) that would have impelled intra-zonal organization and hierarchy to manage. As a result, the "Central Zone" came to be interpreted as engaged in core-periphery relations with the rest of the Maya area that involved the exchange of raw materials from the highlands for manufactured lowland goods.

Given the heavily materialist perspective of early research in the question of lowland Maya complexity, it is of little surprise that limited attention was paid to any ideological factors for socio-political complexity (Willey 1977:416). In fact, this early phase of Maya society was characterized more in terms of technological achievement (such as pottery making), adaptive strategies (such as swidden farming and settlement location), and trade contacts (resource procurement), than for its ideo-religious characteristics. Perhaps Rice (1976b:445) provides the most apropos description of the Maya for this early period:

> One can imagine social and ceremonial leadership growing with population size, the subsistence system, and participation in trade. As land pressure begins to limit subsistence options in terms of both space and labor investment, internal control and planning become major concerns. Identical development in surrounding regions would bring leaderships into increasing contact, if not conflict, both testing and reinforcing bases of power, while formalizing local and regional territories and hierarchies.

The leader in this reconstruction is conceived primarily as foreman managing resources, striking trading partnerships, and accumulating some wealth as payment for the successful distribution of goods throughout the community.

These "boot-strap" models for socio-political complexity were derived directly from neo-evolutionary models (Flannery 1972) coming into vogue at the time. Given their anti-diffusionist posture, these models accommodated foreign influence only through strict economical mechanisms, and therefore left little room for other, perhaps more dramatic, forms of contact with the early lowland Maya. However, some of the more important regions exhibiting coeval or more pronounced socio-political complexity were to be found in regions of similar environmental conditions, such as the Pacific coast (Lowe 1977; Quirarte 1977) or the Gulf coast (Coe 1977), which would not have found any advantage to the types of economic relations posited by core-periphery models, rendering materialist explanations somewhat incomplete.

From Kings to Shamans

The discovery that the massive constructions of El Mirador, namely the gargantuan Danta and Tigre architectural complexes dated to the Late Preclassic (Graham 1962; Hansen 1998; Matheny 1980, 1986b), suggested that by this period, lowland Maya society had developed a centralized political hierarchy (Hammond 1992; Sharer 1992). Complementary discoveries of Late Preclassic period monumental constructions at Tikal (Laporte 1995; Laporte and Fialko C. 1990) and Uaxactun (Valdés 1993) suggested that this complexity was regional, much like its later Classic period successor. To wit, Freidel and Schele (1988a:549) were the first to suggest that the single most visible attribute of Classic period society—the institution of divine rulership known as *ajaw*—was indeed constitutive of Late Preclassic Maya society from the 1st century BCE onward as well.

Since the authors were interested in the development of this institution, they developed an explanatory model that, by necessity, focused on the Middle Preclassic period. In the same way that Rice (1976b:445) suggested the Middle Preclassic leader was "a centralized authority [that] served to minimize conflict and disruption" (Rice 1976b:445), Freidel and Schele (1988a:549) claimed that "the institution of *ahaw*…was invented to accommodate severe contradictions in Maya society between the ethos of egalitarianism and an actual condition of flourishing elitism brought on by successful trade and interaction between the Lowland Maya and their hierarchically organized neighbors over the course of the Preclassic era" (Freidel and Schele 1988a:549). According to Freidel (1979), these regional economies were driven by goods of culturally specific value (exotics, information, and finished products) rather than bulk goods, such as salt, basalt, and obsidian (Rathje 1971, 1972, 1977).

Freidel suggested that a Middle Preclassic regional commercial network resulted in intra-community inequality which, in turn, would have required ideological justification. Furthermore, this justification would have had to deploy an idiom resonant with predominantly peasant traditions of the time. Given the exotic nature of the goods needing justification, Freidel and Schele claimed that there developed "an institution of kingship that appealed more to the principle of personal charismatic power endowed in the role of the shaman than to the principles of lineage and genealogy" (Freidel and Schele 1988a:550). In other words, Late Preclassic rulers did not descend from "managerial" ancestors charged with logical administration of resources. Rather, they descended from early rulers who constituted "a political ideology emphasizing personal charismatic power and ritual roles of a village-level specialist" (Freidel and Schele 1988a:550).

This model derived from a materialist paradigm that interprets complexity as a consequence of new "needs" arising from the growing scale of local economies. Nevertheless, the big men of the Middle Preclassic could also be seen as incidental accumulators of material wealth; in Freidel and Schele's model, their major role was the monopolization of ideological power which "was manifested in a material form that [could] be manipulated centrally and experienced in common" (Earle 1997:10). To some degree, this model presages agent-oriented models applied to the Pacific coast (Clark and Blake 1994).

Summary

Preliminary research on the Preclassic Maya was able to establish important culture-historical benchmarks that identified the period—the Middle Preclassic period (1000–400 BCE)—for the study of the rise of socio-political complexity in the lowlands. However, given the few and insufficient data from this period, only general models of Middle Preclassic Maya society were developed. Drawing from a smattering of paradigms applied elsewhere in Mesoamerica, the models idealized the Preclassic Maya as autonomous and egalitarian farmers living in small villages scattered throughout the lowlands. These villages were presumably composed of several extended families whose primary activities included subsistence agriculture, although there was some evidence of special function activities.

What characterized much of Middle Preclassic Maya society derived from the adaptation of subsistence agriculture strategies to the lowland environment. To this cultural "blank," some scholars posited several factors—ideology, trade, war, and environmental limitations—as causes for change. It would seem that initial research in the Preclassic period worked backwards, perhaps by necessity, from the Classic period "answers" to the Preclassic period "questions." In large part, Middle Preclassic Maya society was "reverse engineered"; that is, attributes from later periods were combined with general principals of social process to backwards-model an earlier society.

Subsequent to these initial studies, a specialized interest in these questions helped to design research projects aimed specifically at elucidating the development of the Middle Preclassic period. These projects provided a plethora of data (rather than models); a short summary of the salient results follows.

MIDDLE PRECLASSIC MAYA COME FRONT AND CENTER

More sophisticated models for the Middle Preclassic period became possible as scholars designed research focused directly on the "earliest Maya" (Hammond 1977b) at sites such as Cuello (Hammond 1991a), Cerros (Freidel 1979; Robertson and Freidel 1986), Colha (Shafer and Hester 1983), and Lamanai (Pendergast 1981). In the past thirty years, research on the Preclassic Maya has flourished to such an extent that several areas within the lowland Maya area provide compelling data on the Middle Preclassic period. Moreover, taken together, these data provide enough regional information to posit regional models of socio-political development.

Specifically, the areas for which detailed data have been gathered are: (1) the Rio Hondo and the New River region of northern Belize, including the sites of Cerros (Freidel 1979), Cuello (Hammond 1991a), K'axob (McAnany 2004), Colha (Shafer and Hester 1983), Nohmul (Hammond 1985b), and San Estevan (Bullard 1965); (2) the Belize River Valley, including the sites of Barton Ramie, Cahal Pech (Awe 1992), and Blackman Eddy (Brown 1997); (3) the central Peten, including the sites of Nakbe (Clark and Hansen 2001), Tintal, Wakna, El Mirador (Matheny 1986b), Uaxactun (Hendon 1999), and Tikal (Laporte 1995); (4) the Petexbatun area, including the sites of Seibal (Willey 1990), Altar de Sacrificios (Smith 1972), and Itzan (Johnston 2006); and finally (5) the Copan region (for more detail see Canuto 2002, 2004; Crangle 1994; Cummins 2007; Hall and Viel 1994, 2004; Longyear 1952; Sharer et al. 2011; Viel 1993a, 1993b, 2006; Viel and Hall 1998, 1999). Data from these sites is supplemented by much more information gathered from other sites where Preclassic materials have been recovered incidentally during the investigations of other time periods. Furthermore, the research on this period is ongoing and data is rapidly accumulating, so it is reasonable to expect that the next decades of research will bring many more and surprising results.

In the most general of terms, these data demonstrate that the sociopolitical complexity in the Maya lowlands had developed far earlier than the Late Preclassic period (Awe 1992; Clark and Cheetham 2003; Clark and Hansen 2001; Clark et al. 2000; Garber et al. 2004a; Hammond 1986, 1992; Hansen 1998; Healy, Cheetham et al. 2004). In the space provided, it proves impossible, however, to summarize the data gathered on the Middle Preclassic period from all these efforts. However, the research on two regional phenomena related to all Middle Preclassic sites in the Maya lowlands will be summarized, namely (1) the recent evidence for the widespread adoption of agriculture in the region, and (2) the distribution and chronology associated with the various Middle Preclassic ceramic types. These data will provide a baseline for the development of a social model explaining the Middle Preclassic rise of socio-political complexity in the Maya lowlands.

Early Preclassic Period: Precocious Pre-ceramic Horticulturalists

Early models of the Early and Middle Preclassic periods postulated farmers filtering into the central Peten following riverine and estuarine environments inland from the surrounding regions. In the last decade of research, multiple palynological studies have greatly refined this view both in terms of dates and scale. Paleoecological studies of areas neighboring the lowland Maya area—the Pacific coast (Neff et al. 2006c) and the eastern Gulf coast (Pope et al. 2001; Rust and Leyden 1994)—have demonstrated that domesticated corn was being used as early as 5000–3500 BCE. The development of a horticultural adaptation that took specific advantage of estuarine/riverine environments developed on the Pacific Coast as early as 2000 BCE.

In northern Belize, furthermore, the same data suggest that domesticated maize was in use by 3400 BCE, and indicators of agriculture-induced deforestation was ongoing by 2500 BCE (Jones 1994; Pohl et al. 1996). In the southwestern area of the Petexbatun, initial deforestation was also dated to ca. 2000 BCE (Dunning et al. 1997; Dunning et al. 1998). Among the regions occupied by the lowland Maya, the only outlier to this pattern is the southeastern Maya area around Copan where major deforestation seems to date to ca. 900 BCE (Rue et al. 2002; see also McNeil et al. 2010).

These data from the margins of the central lowlands suggest that populations to the west, south, and east (but not the southeast) of the central Peten had adopted the horticulturalist adaptation nearly a millennium before the Middle Preclassic period. Consistent with this earlier time frame, paleoecological studies in the central Peten (Curtis et al. 1998; Hansen et al. 2002; Islebe et al. 1996; Leyden 2002; Vaughan et al. 1985; Wahl et al. 2006; Wahl, Byrne et al. 2007) demonstrate that major deforestation in this area dates to ca. 2000–1000 BCE, reaching its peak at ca. 500 BCE. These data are compatible with the horticulturalist-incursion model in that as "agriculturalists made their way up-river, it would have been a small step for them to adapt floodplain agricultural strategies to the edges of wetlands" (Wahl et al. 2006:386).

It would seem that these data indicate the existence of an Early Preclassic pre-ceramic occupation in the Peten undertaking horticultural practices nearly a millennium before the Middle Preclassic period. Evidence for such an occupation in Belize has already been recovered (Iceland 2005; Iceland and Hester 1996), and, given the paleoecological data, it is likely that evidence for a more widespread distribution of this occupation will soon follow. Even if not substantial, the indication of a long-term Early Preclassic sedentary population within the Maya lowlands renders more feasible the possibility of widespread complexity developing in the first half of the 1st millennium BCE (see Iceland 2005).

Middle Preclassic Period: Early Regional Interaction

The beginning of the Middle Preclassic period of the Maya lowlands can now generally be appreciated as broadly correlated with the development of ceramic production. However, paleoecological data of this period suggest that agricultural activity was greatly increasing. For instance, deforestation of the central lowlands was accelerating, reaching its peak ca. 700–500 BCE (Wahl, Byrne et al. 2007), while intensive manipulation of wetland areas in northern Belize was also commencing (Pohl et al. 1996). In other words, consistent with the data for an extensive pre-ceramic occupation, the palynological and ceramic data suggest that regional exchange networks and agricultural intensification techniques date to the pre-Mamom phase of the Middle Preclassic period.

Recent recovery of pre-Mamom phase ceramics from sites like Cahal Pech and Blackman Eddy has triggered a reclassification of the disparate pre-Mamom ceramic complexes from central Belize into a single "horizon" (Cheetham 2005; Clark and Cheetham 2003). Cheetham (2005:28) proposes the "Cunil horizon" based on a broad set of similarities, such as specialized forms (colander bowls, mushroom stands, chalice-shaped censers, pot stands, wide-everted-rim plate, and *tecomates*), pottery-making techniques (dull slips, patchy coloration, fine-tip etching), and decorative motifs (*k'an* cross, zigzag, shark tooth, music bracket, cleft, flame eyebrow, and the avian serpent). Pre-Mamom phase ceramics have been classified into four regional ceramic interaction complexes (Clark and Cheetham 2002; see Chapter 6, this volume, for further discussion of these early ceramics). These are Xe ceramics in the southwestern Petexbatun region, Eb and Ox ceramics in central Peten, Cunil ceramics in central Belize, and Swasey ceramics in northern Belize.

Comparison of these four complexes show that their utilitarian wares are distinct from one another while their fine-ware assemblages are similar. Clark and Cheetham (2003) suggest that the distinctiveness of the utilitarian assemblages indicates local groups were in place in their particular area (Petexbatun, Mirador Basin/central Peten, central Belize, and northern Belize) long before they adopted pottery. As a consequence, these groups developed local tool-making traditions that would have been reflected in their earliest ceramic assemblages (Clark and Gosser 1995), a conclusion consistent with the recent paleoclimatological data discussed above. As for the similarities among the fine wares, interregional interaction of group leaders would account for the widespread distribution of similar types. They conclude that the pre-Mamom lowland Maya landscape was populated by distinct "tribes" engaged in interregional exchanges of elite goods.

It is important to note, furthermore, that the southeastern Maya area sequence is entirely different. It is clear that during the Cunil horizon, inhabitants of the Copan region were indeed conversing in the pan-Mesoamerican symbols of the day (Gordon and Uir phase ceramics at Copan and Chotepe at Puerto Escondido). However, these fine wares, though marked with "Olmec-style" imagery, were not similar to those of the lowland tradition. Therefore, though groups in the southeastern region were likely not in intensive contact with those in the central Peten, their degree of sociopolitical complexity was likely commensurate.

Summary

Hammond (2000:209) suggested that the Mamom ceramic sphere argued "for a high degree of interaction between regions…a common set of ideas about material culture is accepted across the lowlands and into the highland zone." New data, however, suggest that most lowland Maya groups, during the early Middle Preclassic period (ca. 1000–700 BCE), were already integrated into the pan-Mesoamerican symbol system of the time. In fact, this shared symbol system "attests to a shared tradition and frequent interaction, it indicates a common belief system predating the Mamom era" (Cheetham 2005:31). These data suggest that the early Middle Preclassic period was far from being a time of quiet tribal existence; rather, there appears to be great ferment in all corners of the Maya area (see Ball and Taschek 2003; Cheetham 2005; Clark and Cheetham 2003).

To wrangle the disparate data on the Middle Preclassic for this essay proves challenging, as they have been gathered from multiple efforts using distinct approaches and to answer different research questions. However unrelated the data might be, they do help define in the broadest of terms a Middle Preclassic "narrative" useful for general model building. What follows, then, is a model that attempts to explain how the integration of multiple Middle Preclassic groups led to the first evidence of lowland Maya socio-political complexity.

MODELING THE EARLY MAYA COMPLEXITY: IT TAKES A VILLAGE

What is needed for the Middle Preclassic period is a model for the most important social innovation of the period—the agrarian community. Expressed in another way: "Proto-Mesoamerican tribes, as do all tribes, faced the dilemma of aggregation. Tribal peoples have manifold reasons for getting together with others, but crowds are *trouble*" (Clark and Cheetham 2003:312, *emphasis added*). In classic social theory, traditional social anthropology, and modern sociology, aggregation, spatial proximity, and interaction are the empirical prerequisites for the formation of the social group broadly termed "community" (Arensberg 1961; Durkheim 1984; Redfield 1955). The development of a full model for the rise of social complexity in Middle Preclassic Maya society needs to contend with how and why "crowds are trouble."

It is suggested here that the emergence of hereditary rank, hierarchy, and differentiation is fundamentally a social question. There is no single external factor, such as climate change, environmental limitation (Carneiro 1972), or population pressure (Sanders and Price 1968), that satisfyingly explains why human groups change the form and scope of their social interactions vis-à-vis one another. Importantly, an increasing archaeological interest in modeling ancient communities (Canuto and Yaeger 2000; Rogers and Smith 1995; Schwartz and Falconer 1994; Wilk and Ashmore 1988; Wills and Leonard 1994) provides some support for this view.

The transformations of social structure and the creation of social personas during the Middle Preclassic resulted in the incorporation of new forms of praxis into daily social life. New identities, new goods, new statuses, new responsibilities therefore changed the way in which people, through shared common quotidian practice, would have established a sense of common identity. The nature of community was changing, requiring a more complex conjunction of what Watanabe calls "place, people, and premise" (1992:12). In fact, the great majority of the data from the Middle Preclassic period speak to these same social processes: the formation of corporate hierarchies (premise), the elaboration of personhood (people), and place-making (place).

For each process, distinct archaeological proxies—such as architectural monumentality, spatial plans of sites, exchange of exotic goods, personal adornment, burial practices, and sacrificial offerings—attest to the salience of these particular processes in different contexts. Despite a growing and coherent set of data, the Middle Preclassic period is overwhelmingly understudied. Perforce, these data are patchy, discontinuous, and limited. For this reason, the model proposed here should be understood as a working hypothesis, subject to radical change as more research is done. What follows is a discussion of how social practices led to the development of hierarchical corporate groups, accommodated a growing number of non-kin-based social personas, and established special "places" of power and social memory. On the whole, I suggest an *emergent lineage-community* model to interpret the social transformations evident in the Middle Preclassic period.

The Legacy of Lineage: A Forest of Caciques

To begin, models of this type should be drawn from a wealth of ethnographic and ethnohistoric data from the region. This research has demonstrated that descent groups were important to both the modern and colonial Maya (Beals 1932; Bunzel 1952; Carmack 1981; Edmonson 1982; Gossen and Leventhal 1993; Holland 1964a, 1964b; Hopkins 1988; Landa 1941; Roys 1957; Tedlock 1982; J. Thompson 1970; Vogt 1961, 1968; Wauchope 1938; Wisdom 1940). One challenge, however, is the question of lineality—whether patrilineal, matrilineal, double-descent, or even cognatic—which remains unsolved since even the ethnographic record is equivocal (Sharer 1993). The debates on the prehispanic Maya descent rules amply show the variability of their system (Coe 1965d; Fox and Justeson 1986; Haviland 1977; Hopkins 1988; Marcus 1983b; Mathews and Schele 1974; Scholes and Roys 1948; Stuart and Schele 1986).

This approach also requires adapting the synchronic models of ethnographic and ethnohistoric examples to the Middle Preclassic period, which lasted more than half a millennium. The long-term diachronic perspective of archaeology tends to emphasize "social process" and ignore the humanist scale of practice. For this reason, a dynamic *emergent lineage model* is developed. Data from the Preclassic period are used to develop a model that is "kinship based, where one's position within the social group is defined by abilities such as age, knowledge, hunting prowess and so forth" (Lange 1992:109–11), but that also accounts for processual change over centuries.

Families First

The first step would be to establish basic principles of how these early "tribal" groups would have been organized. Comprehensive ethnographic and ethnohistoric research has suggested that the basic social group among modern and colonial Maya (Farriss 1984:132; Wilk 1988:137–41) was the co-residential group composed of consanguineal and affinal kin—like an extended family marked by the inclusion of both spouses and children (Murdock 1949:41–42). This extended family was maintained through post-marital residence proscriptions. Among modern Maya groups, co-residence rules vary from region to region—there appears to be a general distinction between a patrilocal pattern among both highland Guatemalan and lowland Yucatecan groups, and first a uxorilocal and then a neo/patrilocal pattern among Cholan peoples (Wilk 1988:141).

Ethnographic research shows that such groups present a pattern of emergent clustering around originally dispersed homesteads (see Hudson 1969). Derived from the domestic developmental cycle (Fortes 1958), an "accretionary family-growth model" (Tourtellot 1988a:97) is based on specific lineal and locality rules among modern Maya groups. In fact, many modern Maya settlements exhibit a residential pattern in which nuclear families descendant from an original family prefer to remain proximal to the residence of the husband's parents (Hanks 1990; Redfield and Villa Rojas 1934; Wisdom 1940)—a patrilineal and patrilocal pattern. Therefore, over time, the imposition of such residential rules combined with the natural generational growth of a single nuclear family, would foster the development of a spatially clustered set of different households.

Although the evidence from the Preclassic period does not speak to the details of post-marital locality or overall lineality, the earliest phases at Cuello (Hammond 1991d; Wilk and Wilhite 1991) and at Cahal Pech (Awe 1992; Healy, Cheetham et al. 2004) suggest the existence of what has been called a "generationally extended family residential group" (Canuto 2002; Sharer 1993:97; Yaeger 2000). The growth of the domestic structures through the earliest phases of these sites also falls within the patterns of the natural generational growth of a kin-based group with specific lineage-derived locality rules. The settlement data from the surrounding settlement at Cahal Pech suggest that each nearby knoll was the seat of a separate extended family group. It would therefore not be outlandish to suggest that most of the Cunil horizon and contemporary sites of the terminal Early Preclassic were large co-residing kin groups.

Extended over multiple generations, such lineal-locality rules would proscribe an indefinitely expanding cluster. Ethnographic research, however, has shown that this developmental cycle does not extend far beyond four generations (Wisdom 1940:149; LaFarge 1947:114–15; Vogt 1969:129–34) before the extended family group as a jural unit disintegrates: "Upon [the] death [of the original family], the last link which binds the family together is lost, and the family as a unit breaks up. Each household inherits equally of the family property, and each household head becomes the head of his new family group" (Wisdom 1940:249–50). With the expiration of this founding family and their nuclear household, the larger residential group disperses its corporate holdings among the descendant families and devolves into a non-corporate group of loosely affiliated smaller families. These cadet families then begin to develop into separate residential kin groups of their own as their former affiliations become less representative of their identity and determinative of their resources.

While the extent of an Early Preclassic pre-ceramic period has yet to be defined (Clark and Cheetham 2003; Iceland 2005) for the Maya lowlands, there is the possibility that this form of aggregation and its subsequent dissolution through group fissioning would have characterized centuries of Maya occupation in the lowlands. In fact, due to economic constraints, ecological factors, and the posited social structure, dispersal of households on the landscape might be the "default" setting of Maya settlement (Drennan 1988). Maya extensive agricultural practices (e.g., long-fallow cycle swidden agriculture) focused household labor requirements locally on dispersed areas and made residence near agricultural plots advantageous (Drennan 1988). In fact, the lack of standardization of agricultural intensification efforts implies local, individual control of agricultural strategies (Dunning and Beach 1994). Thus, dispersal helps maximize agricultural productivity and minimize labor costs of the extended family.

Although settlement fissioning occurs for various reasons, it also allows households a modicum of control against competition from the descendants of the founding family (McAnany 1995). Considering the low archaeological impact this type of occupation would make, it is possible that the thus-far archaeologically invisible Early Preclassic lowland Maya settlements might have take this form. Socially guided mechanisms of intergenerational dispersal of horticulturalists could lead to the extensive environmental impact that has been recorded by palynological data.

Family Names

The jural dissolution of the larger extended family seen in contexts such as the Chortí *sian otot* (Wisdom 1940) represents the limits of descent-based affiliations and their eventual eclipse by intragenerational alliances (marriages) that fragment the original descent-based group into smaller units. Over time, there is evidence that these newly unaffiliated families might maintain a loose system of horizontal cooperation and interaction (Gillespie 2000b), but their identity as a single localized lineage is subverted by the dominance of the individual marriage alliances that compose the larger group. As much as descent rules can foster settlement clustering and nucleation, the formation of equally important marriage alliances can encourage the opposite process of settlement fissioning.

This process would lead to a dispersal of settlement with a diffused form of descent group affiliation. For the Yucatan, one such system, based on patronyms, was noted by Landa (1941). As an organizational principle, the patronym was associated with rights, obligations, privileges, and marriage proscriptions, fostering the development of non-localized exogamous paternal sibs (Beals 1932:473; Haviland 1968, 1972)—also known as patriclans (Hopkins 1988)—rather than strict lineages. Similar organizational principles were recognized among the Itzá and the Pokomam (Miles 1957). Roys recognized that the native term *ch'ibal* (1939:35, 40) was a possible referent for this form of association. Recent research (Restall 1997) on the Colonial period in the Yucatan has demonstrated that the ch'ibal was co-terminous with the local town, the *kah* (Gillespie 2000b; Restall 1997:17; contra Roys 1957:4). In other words, there was no formal organization of the ch'ibal members outside the limits of the local community.

A sib community or clan (Keesing 1972) would posit a co-residing group of descent-related families, but would not result in the internal stratification of its constituent members based on their consanguineal relation to an apical ancestor. In fact, the Yucatec *ch'ibalob* consisted of both elites and non-elites and were hardly egalitarian, but these intragroup distinctions did not derive from asymmetrical kinship relations within the ch'ibal—they resulted from the personal or nuclear family control over land and resources. In fact, because the specific lineal connections between members remained ambiguous, the sib community was not constituted according to the strict genealogical accounting of rights and privileges to the resources of the group. To this extent, therefore, the sib was not corporate because it did not control communal resources that required redistribution and adjudication. The lack of corporateness undermined the need for residential proximity (see Yaeger 2000:291) because of a minimized need to physically claim and secure access to centrally distributed resources. In fact, there is more of a need to directly oversee and control the individually held resources of the family. Consequently, the spatial definition of a sib community remained dependent upon an individual household's adaptive strategies rather than on a group-based behavior.

The data required to assess the applicability of this model—regional settlement patterns and comparative household inventories—is difficult to collect for the Preclassic period. However, there is the suggestion of this type of organization at Cuello through much of the Middle Preclassic period (Wilk and Wilhite 1991:129), as well as at Copan (Cummins 2007:123; Fash 1986:76–79; Viel and Hall n.d.). Given the absence of a strong central locus for the settlement and a prevalence for evenly distributed settlement, it would seem likely that settlement patterns reflected strategies optimal for individual households rather than for a larger group. If true, Cuello and Copan throughout much of the Middle Preclassic were characterized by generationally limited, residential kin groups distributed over the landscape with a passive sense of group identity.

At Copan, the Gordon phase platforms would reflect a degree of centralization—a central public plaza space—where various family members of different sibs would be buried with their particular descent-group identifying iconography. In such a context, the social landscape could accommodate social stratification (as a function of individual family strategies) without subsequently requiring the architectural elaboration of a particular civic-ceremonial center. In these cases, furthermore, marriage alliances between members of cadet families would result in social fissioning, as founding families could not muster sufficient social incentives to induce nucleation. At Copan, the eclectic mix of ceramic styles throughout the Middle Preclassic (Cummins 2007; Viel 2006) reflects a degree of household autonomy with respect to their participation in exchange networks.

The slow development of Cuello's central household combined with the settlement data indicating an even distribution of settlement suggest a similar process was extant for much of the Swasey and Bladen phases. The architectural elaborations recorded at the central household of Cuello fall well within the range of the social stratification sustained by the generational development of a residential kin group. It would be roughly at 600 BCE when the central courtyard architecturally reflects a degree of centralization and corporatism not typical of a sib community (Gerhardt and Hammond 1991:106).

It is important that the attribution of sib community not be misunderstood as an evolutionary phase. At all times, a social group's social structure depends on the relative influence of the complementary forces of kin affiliations and marriage alliances. As suggested by several ethnographers (Redfield and Villa Rojas 1934; Vogt 1976; Wisdom 1940), the generational dissolution of an extended family is triggered by alliances of marriage within subsequent generations that allow members eventually to disassociate and establish their own smaller extended families.

A sib can develop as a consequence of this cycle perpetuated over time. There were likely many different types of corporate groups throughout the Middle Preclassic period. Nevertheless, the loosely organized groups visible in the archaeological record during the early Middle Preclassic period do seem consistent with a *sib-like* organization. Furthermore, the spread of regionally distinct ceramic types attests to the development of several local networks of exchange of limited reach.

First Families

However, in specific cases during the Middle Preclassic period, descent affiliations and family accumulation of privilege and resources *were not* counter-balanced by marriage alliances and residential dispersal. When the marriage alliances of descendant generations were eclipsed by the descent affiliations of the spouse (the husband, in a patrilineal system), the generational transference of privileges over resources and labor did not result in their dispersal, but rather in their concentration within a single descendant family. In those instances the developmental cycle of founding, growth, disassociation, and re-founding was broken and the material record was thereby impacted. The subsequent and repeated clustering of residences near the household of the "first-generation family" helped develop a vertical hierarchy controlled by the heads of the original family who enjoyed easy access to the labor and products of the related descendent families (Sanders 1989). How and why certain areas might exhibit this pattern might involve some type of "aggrandizer"; this question will be discussed further below.

In these cases, the descent rules maintained the integrity of a lineage for multiple generations. Therefore, the direct descendants of a lineage founder had privileged access to lineage resources and resided in larger, more elaborate residences (Tourtellot 1988a, 1988b). Lesser members, offshoot families, and recent additions did not conscript labor equally and thus had smaller, "humbler" residences. Furthermore, the founding family lived not only in the larger residential compounds but also in those with the longest time-spans, while cadet families had shallower time-depth (Tourtellot 1988a, 1988b).

At Blackman Eddy, Cahal Pech, and Cuello (Hammond, Bauer et al. 2002), access to the founding residential group was successively restricted. The architectural formalization of the residential space physically separated it from surrounding residences, a trend that indicates a special function for that residential complex, by association to its inhabitants. This formalization is also accompanied by the construction of specialized buildings within the residential space, such as a sweat bath at Cuello (Hammond and Bauer 2001), round structures at several sites (Aimers et al. 2000; Hendon 1989, 1999; Willey et al. 1965:51–59), and linear triadic complexes at Cahal Pech (Healy, Cheetham et al. 2004) and Blackman Eddy (Garber et al. 2004c). With these constructions, the leading family signaled that certain activities were its prerogative.

The construction of these buildings was accompanied by dedicatory events (Healy, Cheetham et al. 2004:121) and feasts (Hammond et al. 1995:125; Joyce 2003:250; Powis et al. 2002) that further enforced the singular nature of this residence. Feasting likely involved the sharing of exotic goods, such as cacao-based drinks, as evinced by the fragmentary remains of spouted vessels (Powis et al. 2002). The recovery of blood-letting paraphernalia—at Blackman Eddy (Garber et al. 2004c)—also suggests that ritual events were associated with these feasts. Moreover, the dedicatory caches often included imported goods such as jadeite, obsidian flakes, and marine shell objects. Overall, these events reflected a command over labor and goods (Abrams 1987, 1994; Sanders 1989) and control over agricultural production (e.g., Brumfiel 1987; Brumfiel and Earle 1987; McAnany 1989).

Even though these events were likely inclusive, their periodic nature would establish a temporal delimitation to the physical proximity of the social group. Consequently, intragenerational clustering would have mitigated the attenuation of interfamily interaction, guaranteed representation of cadet families within the larger group, and provided access to resources distributed through a shared descent-based ideology (see Haviland 1968; Hopkins 1988; McAnany 1995; Rice 1988). Therefore, settlement nucleation—perhaps even beyond the environmental capacity of the region—was advantageous to all members.

This strategy of social intensification would have led to the creation of a localized group represented by the sharing of ideas, goods, and resources that would also have required relations to other like areas to remain viable over generations. Therefore, as social alliance networks extended between distinct population aggregates, so would networks of social obligation and sumptuary goods exchange have expanded. If the social relations of multiple "first families" throughout the Maya lowlands promoted exchange of goods and ideas over a wide area, it might have resulted in the sharing of serving vessels as seen in the early Middle Preclassic period (Clark and Cheetham 2003).

First Fathers

Although monumental funerary buildings likely made their initial appearance during the Late Preclassic period (see Freidel and Schele 1989:242), the veneration of ancestors was practiced much earlier "as part of emergent Preclassic communal identity and territorial possession" (Hammond, Bauer et al. 2002). The evidence for ancestor respect—perhaps as a means to claim property and rights—during the Middle Preclassic comes in the form of burials located under house or patio floors (Hammond et al. 1991; Robin 1989), burials intruded into already built ceremonial buildings (Aimers et al. 2000; Healy, Cheetham et al. 2004), specially treated burials (Healy, Cheetham et al. 2004), and ritual objects made from human bone (Hammond, Saul et al. 2002).

These examples suggest that several strategies of ancestor veneration were used to provide reasons to recognize a jural prerogative of the descent group over resources: "subfloor and shrine burials represent vital links in the chain of inheritance; thus, the placement of individuals in these residential contexts involved elaborate ritual" (McAnany 1995:161). In the absence of a formal legal system, an effective form of claiming, maintaining, and demonstrating rights over property and place is through the burial of one's ancestors in those areas. The development of generationally sustained descent groups was likely in large part due to widespread acceptance of the inherent rights and interdictions that underwrote the practice of ancestor veneration. The case of multiple burials in the Gordon platforms at Copan perhaps further illustrates a difference of social structure in the southeast Maya area during the Early and Middle Preclassic in which the social groups were not vested with jural control over household resources (much like sibs).

What is missing, however, from the range of evidence for ancestor worship in the Middle Preclassic is the centrally located monumental mortuary structure. Interestingly, this absence might be limited to the lowland Maya of this time, since a monumental Middle Preclassic mortuary structure was excavated in the Salama Valley in the northern Maya highlands (Sharer and Sedat 1987:127–41). For the lowland area, however, none of the central structures dating to this period—such as Str. B1 at Blackman Eddy (Brown and Garber 2005; Brown and Garber 2008; Garber et al. 2004c), Str. B4 at Cahal Pech (Aimers et al. 2000; Healy, Cheetham et al. 2004; Powis et al. 1999), and Str. 51 at Nakbe (Hansen et al. 2002)—can be considered a monumental funerary shrine. In fact, all these structures had predominantly ritual functions, perhaps as stages for public performances. For some, the subsequent addition or intrusion of burials highlights the importance of associating certain people with public, ritual, central, or civic buildings. Over time, the repeated association of a single structure with the burial of particular individuals legitimized the notion of a special mausoleum for future ancestors. The tendencies notwithstanding, the location of one's interment in the Middle Preclassic remained largely a function of one's accomplishments in life.

Future Ancestors

The descent groups of the Middle Preclassic were in no way as formally defined as lineages found elsewhere in the Maya region, such as the *amak* of the ethnohistoric Quiche (Carmack 1981:59, 161; Fox and Cook 1996:811–12). As the basic social unit of the Quiche, it was centered around a *tinamit* (Carmack 1981:65) where "the lineage house, the altar and temple for the patron deity, and the residence of the lineage head were built." The different *amak* were segmentary in nature as they united "in loose unions of political groups to combat a common enemy" (Carmack 1981:60). No such nested organization is evident for the Middle Preclassic.

However, the evidence does suggest increasing regional interaction—every Middle Preclassic center thus far studied has evidence of precious materials such as shells and jade (as well as utilitarian goods such as obsidian). These suggest long-distance trade was commonplace, which is consistent with the interregional prestation of serving vessels (Cheetham 2005). It is clear that the various descent groups developing throughout the region were engaged in reciprocal gift-giving (Demarest 1992a; Freidel 1986c; Hoopes 1985; Lincoln 1985; Rathje 1972; Sabloff 1986; Schortman and Nakamura 1991). It is possible that specially orchestrated exchanges were designed to forge alliances, pay dowries, perform ritual celebrations, or establish trade agreements that would create a separate regional exchange system in which only a handful of people could participate.

Such external alliances weaken the lineage's vertical integration because they create horizontal affiliations between families based on equivalent status and wealth (de Montmollin 1989, 1995; Marcus 1976a, 1992b, 1993) that result in the development of regionally dispersed endogamous social classes. Horizontally integrating mechanisms, like marriage, trade, or political alliances, led to the creation of institutions and practices that differ from and even undermine descent groups (Sanders 1989:102). In fact, the founding family of any lineage eventually came to have more in common with founding families of other lineages than with the families of their own lineage.

The internally stratified social descent-based group thus begins to reflect a social organization of both kin-based affiliations manifested through descent rules and personal alliances cemented through marriage or even fictive kin. This combination leads to a form of social integration in which "political and economic interests, on the verge of invading the social field, have not yet overstepped the 'old ties of blood'" (Levi-Strauss 1982:186). In this manner, the integration of a stratified descent-based social group is based more on alliances, affiliations, and contractual relationships to the central household in which "nothing prevents the substitution of affinity for blood ties whenever the needs arises" (Levi-Strauss 1982:187; see Gillespie 2000b). This house-society model (Gillespie 2000b, 2000c; Joyce 2000; Joyce and Gillespie 2000) suggests that social groups were not bound to either residential or descent rules: the house "perpetuates itself through the transmission of its name, its goods, and its titles through a real or imaginary line, considered legitimate as long as this continuity can express itself in the language of kinship or of affinity and, most often, of both" (Lévi-Strauss 1987:151).

The Middle Preclassic data demonstrate that several social groups were adapting old forms of social organization (residential kin groups) to new forms of organization better suited to sustain a more complex set of social relations. After the widespread settlement of the region and adoption of pottery, after social strategies of periodic residential fissioning were discarded, the aggregation of people into villages led to the development of new types of social groups. These changes were not necessary, just chosen. The question to ask is Who chose them? And, who could opt out of them?

Ecce Personae, or the "Way of Masks"

Lineage-based models applied to the question of social complexity in the Preclassic period suggest that inequalities inherent to the system of kinship were primary to the development of socio-political inequality. However, the development of complex descent groups was not the only mechanism impelling social change during the Middle Preclassic period. Although the proscriptions and prescriptions of a lineage-based social structure were the medium within which agents interacted, schemed, and negotiated during the Middle Preclassic, there developed a series of other forms of social action that would have provided impetus for structural change. The most commonly appreciated form of social action derives from the individual agent (Clark and Blake 1994; Cowgill 2000; Flannery 1999; Flannery and Marcus 1976a) who realizes strategies of long-term impact to social relations. This and other types of agents developed non-kin-based forms of social interaction in the Middle Preclassic.

The Amplification of Kinship

The nature of "special agents" as individuals can be reworked in order to re-establish the historical and cultural moorings to which they are necessarily tethered. In this vein, Gillespie (2001) has suggested a focus on the concepts of "personhood," society, and collective representations in which emphasis is placed on the enactment of social relationships through (daily) practice. In this formula, actors as "persons" rather than as "individuals" are constrained by the expectations of others regarding their particular role and capabilities. The social persona "is often encompassed by a title or name and materialized by insignia, totem crests, or badges of office. They signify a category of being that may be coextensive with specific groups, property, and places" (Gillespie 2001:82).

Akin to Mauss' *personage* (1985), the social persona embodies rights, both jural and moral, that the individual appropriates. In this fashion, one's social persona is not just a social role (see Radcliffe-Brown 1952)—the individual "has not simply put on the mask but has taken upon himself the identity it proclaims. For it is surely only by appropriating to himself his socially given personhood that he can exercise the qualities, the rights, the duties and the capacities that are distinctive of it" (Fortes 1973:311).

The consideration of "personhood" within society also unlinks social status from social position (contra Binford 1971; Gillespie 2001; see Goodenough 1965; contra Saxe 1970) and thereby allows for the existence of such categories as a "juvenile" whose burial might reflect the embodiment of that persona by any particular individual satisfying the requirements of such a personage. In other words, material goods associated with juveniles could evince only social differentiation rather than also social hierarchy. In this framework, social complexity results in the assignation of social personas to fewer and fewer individuals. In this framework, a singular special individual does not instigate change, rather it is the social group that creates those social persons whose roles allow (maybe even call) for social innovation.

Importantly, archaeological research has access to several material indices of the ancient embodiment of social persons. For instance, a critical dimension of personhood is its relationship to the human body; specifically, embodiment constructs the social persona (Fisher and Loren 2003; Meskell 1999, 2000). Through dress, ornamentation, gesture, and posture, "an individual has the ability to 'put on a social skin' allowing for self-identification as a member of a larger or different social or interest groups" (Fisher and

Loren 2003:225). It is through embodiment that any particular individual finally dons (literally and figuratively) the attributes of their social persona.

Therefore, data such as clothing, personal ornamentation, burial materials, and figural representations (whether ceramic or rupestrian) can provide some information on the representation of past social identities. For Preclassic Mesoamerica, then, the existence of figurines within household contexts, for instance, can indeed refer to the development of household-based rituals (Cyphers Guillén 1993b; Marcus 1999). However, these (and many other) items can also be seen as media for the representation of social identities or personas from that period (Joyce 2003)—they "provide a basis for constructing preliminary hypotheses about emic definitions of social categories and the relationship between them" (Lesure 1997:247).

For the Middle Preclassic, it would appear that there were several socially recognized personas that engaged primarily in social relations not included in kin/descent groups. There were surely more; some may even have been limited to specific groups. However, any model of the social development of the Middle Preclassic period must incorporate the manner in which individuals could have manipulated these various roles over time. A few of the more prominent roles are discussed here, namely lineage heads, elders, nubile women, children/youth, adult women, ritual specialists, ballplayers, warriors, and architects.

Elders, Lineage Heads, Nubile Women

A society that permits the social dynamics that result in the surplus production of prestige goods *also* provides the social logic for a person to play the role of negotiator or advisor to the various centers of production. Rather than the lineage head having to create new social relations (as entrepreneur), he works under the expectations associated with his particular persona. As part of his duties, the lineage-head-as-negotiator might be responsible for the social collective at periodic intergroup gatherings (such as feasts). If a "lineage head" remains so contained within the proscriptions of his descent group, how does change occur?

This idea of lineage head as representative is perhaps vestigially preserved in the term *ajaw*, which means "he who shouts" (Houston and Stuart 2001)—that is, the person who speaks for a group. It seems plausible to suggest that the meaning of the "ruler" title relates to the special function or role of the social persona. Considering that entrepreneurs would have sponsored communal activities (such as feasts or ballgames), their role in those activities would likely have involved some degree of public speaking, whether in the form of incantations, proclamations, narrations, or dialogues. It is possible that public oration was a critical role of the lineage head—yet such a function leaves a great deal of room for individual achievement and distinction.

Beyond public performance, a lineage head might also find some ability to achieve distinction through the different ways in which a surplus of fine goods can be used. Leach wrote: "Kachins do not look upon moveable property as capital to be invested, they regard it rather as an adornment to the person" (1954:142). In such a case, he becomes the bearer of these goods, his body adorned with finery representing the social collective that produced them. The insignia of the group's prestige worn by a single person cannot themselves be exchanged freely—"insignia cannot become object of exchange in any conventional sense; giving one away would be tantamount to abandoning one's social identity entirely" (Graeber 1996:5). This finery is his "mask," and his role is to promote the prestige and power of his entire group vis-à-vis neighboring groups, through the display of his *persona*.

This form of personal adornment is demonstrated repeatedly in the burial contexts of the Preclassic period wherein insignia made of mundane materials are found but which symbolize an individual's specialized role. Mat motifs found on bone are associated with burials at Cuello (Gerhardt and Hammond 1991:106), and mat motifs on ceramics from Nakbe (Hansen 2001a:54; 2005:63) indicate the existence of a widely shared symbolic system marking special personages by ca. 500 BCE (if not earlier). Certainly other exotic materials—jadeite and shell ornaments, inlaid jade teeth—were all used to mark the leader in culturally recognized "finery," providing the appropriate display of the group's status as represented on a single person.

However, for the purpose of exchange, other objects of value must be produced that can, in fact, circulate, without impinging on the person's (and by extension, the group's) carefully crafted and displayed identity. Such objects, furthermore, must bear some generic value separate and divisible from the giver's identity. The evidence at a Middle Preclassic residential cluster from Cahal Pech, known as the Cas Pek group, suggests a heavy household investment in the production of shell ornaments. Also, the inhabitants of Group E at Uaxactun (Hendon 1999; Ricketson 1937) engaged in similar activities. Given the ubiquity of shell ornamentation in burials throughout the Middle Preclassic and the material's "exotic" nature, these objects could represent items of both intrinsic and symbolic value. The head of the descent group associated with this residential group would have been responsible for coordinating their production.

The example of wampum trade (Beauchamp 1898, 1901; Foster 1985; Hammel 1983; Holmes 1883) provides an informative analogy to the relevance of shell production in the Middle Preclassic period. Although wampum was treated as currency by European traders, the Iroquois vested it with the power to transform social relations. They would present "treaty belts" of wampum at events during which leaders from different groups would strike peace treaties. For the Iroquois, because objects made with wampum had to accompany meta-discursive speech of conciliation and community integration (see Urban 1996), the objects enabled changes to intergroup social relations and rendered those negotiations successful.

Wampum was both a bulk currency of generic value and integral to goods of cultural value to the group investing in their manufacture. Wherein a negotiator could prove his mettle would be in the faithful and successful execution of his duties with respect to the function of wampum acquisition and negotiation-making. From wampum acquisition to treaty-belt manufacture, however, the leader had to cajole or negotiate with members of his own group. These intragroup negotiations were undertaken with the premise—rather than pretense—that greater production would ensure greater success. Thus, prestige was afforded not only for the accumulation of generic wampum (wealth) but also for the successful exchange of (prestige) wampum.

Therefore, the development of early social networks (such as lineage) that required some type of negotiator role (lineage head) instigated the production of (1) objects of personal prestige (pendants, insignia, jewelry, headdresses, clothing) that helped define the group (lineage) as distinct from others, and (2) objects that could shuffle between "different domains of value" (Graeber 1996:13; such as beads, vessels, cloth, and cacao beans)—that is, objects that the receivers could revalue according to different criteria. Importantly, such generic items did not necessarily get democratically redistributed. In the case of wampum, for instance, although some was distributed to spectators (Beauchamp 1898:11; Fenton 1998:128; Michelson 1974), the majority of it was divided among the community leaders (Graeber 2001:130), i.e., the lineage heads.

It might be in this fashion that the jade and shell beads common in Preclassic period burials at Copan, Cahal Pech (Healy, Cheetham et al. 2004), K'axob (McAnany 2002), and Cuello (Hammond 1991d) were traded—that is, as objects of generic value that were then reconstituted into unique objects reflecting specific meanings associated with social personas. Also, the trade of *Strombus* shell (originating in the Caribbean) to Nakbe (Hansen 1992a:173–74; Hansen 2005) and Uaxactun (Hendon 1999; Ricketson 1937) might reflect an item of generic value that was then reworked into local systems of symbolic value; in this fashion it would have functioned both as currency and ornamentation. The production of finery and the exchange of goods in the Middle Preclassic period was part of a social network of reciprocal prestation that enabled groups to maintain contact, exchange information, and negotiate accords, alliances, and marriages, rather than a materialist system of wealth accumulation and consumption). The brokers of such exchanges could control the changing valuation of their traded items and thereby derive from the socially sanctioned exchange process some degree of personal authority.

Lesure (1997) provides an example of activities for which lineage heads (or, elders) might prove necessary using figurines from the Mokaya region. He notes the presence of two main categories: unmarried women and village elders. The female figurines are generic in shape and have little in the way of specific detail to suggest they represent anything other than the general category of a "young woman." Contrastingly, the elder rotund males are represented with many more attendant details: they are seated, defined by costume, marked with ornamentation signifying particular social stations, roles, and functions. Interestingly, by 1100 BCE, the figure of the elder seems to fall out of the figurine repertoire and is replaced by figurines of seated nude males striking chiefly postures that suggest the onset of hereditary ranking (Clark 1994:42; for an equivalent model for Oaxaca see Marcus 1999). Lesure suggests the Early Preclassic manufacture of elder male and nubile woman figurines alludes to social negotiation inherent to marriage alliances and associated bride-price. The eventual replacement of the "elder" with the younger "chief" could represent the co-option of marriage negotiations by the maximal lineage head in lieu of several lineage leaders (elders).

Lineage leaders would act in their capacities as group representatives, donning the insignia of group and status conferred on them by their group at particular events. While their insignia of office (which brought with it socially defined rank) were likely defined by group prescriptions, it would be in the exchange of other generically valued materials where a "chief" could affect alterations and thereby prove himself as not the "passive bearer of personhood" (Fortes 1973:287), but an agent of some influence. Those of succeeding generations, having learned from experience, personal exposure, and family memory, quickly gained a competence in discharging such duties that could provide them the necessary distinction (*sensu* Bourdieu 1990) at an earlier age. In this light an exchange of nubile women (unmarked figurines of generic value) would be the "commodity" over which lineage heads were afforded the luxury of some manipulation, creativity, and innovation.

Elders, Women, and Children

If figurines reflect stereotypic social personas (Flannery and Marcus 1976a:382; Joyce 2003; Lesure 1997; Marcus 1999; Oliveros 1974) rather than individual portraits (see Gillespie 2001 for equivalent treatment of Classic Maya monuments), they can reflect emic social distinctions. Two clear distinctions drawn during the Middle Preclassic period are gender and age.

In the northern Honduran coastal regions, members of several distinct farming communities—Playa de los Muertos, Puerto Escondido, Las Honduritas—engaged in the production of figurines (Joyce 2003; Joyce and Henderson 2001; Kennedy 1981; Popenoe 1934) that constituted a single canon of representation (Joyce 2003:250), though apparently produced in different locales throughout the core area (Agurcia F. 1977:8). Joyce notes that these figures represent stereotypes of life-cycle events—the transition to adulthood or old age, or to other moral ideals—such as the decorated seated body. Joyce (2003:259) also notes that by the Middle Preclassic, the greater detail of these figural representations does not necessarily denote the greater individualism of a wealthier society, but rather the elaboration of forms by which the decorated adult could be embodied.

Importantly, Joyce (2003) also relates several figurine types and their associated ornamentation to burials of the same category found at Playa de los Muertos (Popenoe 1934). She thereby suggests a relationship between the idealization of identity in life via figurines and in death through mortuary practices. In this way, mortuary contexts are linked to the representation of social personas rather than to explicit individuals. Ornamentation, dress, and associated burial goods are not just examples of accumulated wealth, but are markers identifying the person (as adult, woman, man, chief, lineage member) in death. The existence, moreover, of gender/age-appropriate ornamentation speaks to the materialization of social personas and renders slightly more complex the age-old interpretation of juvenile burial goods as reflecting the existence of ascribed status.

These interpretations resonate with burial data from the Middle-to-Late Preclassic period K'axob (McAnany et al. 1999), where age differentiation was marked in juvenile burials (Storey and McAnany 2006). Most interestingly, limestone spheres (*yuntun*) and small bowls are exclusively found with children, while objects common to adult burials (such as large open bowls) were not found at all. Beyond their discrimination by age, there exists evidence suggesting gender differentiation of sub-adults as well. Data from Cuello (Robin 1989; Robin and Hammond 1991; Saul and Saul 1991) and Dos Hombres (Trachman and Valdez 2006) suggest that along with the jade and shell beads accompanying sub-adults, there seemed to be a correlation between females (of any age) and *Spondylus* bivalve pendants located in the pelvic region. There is some suggestion, however, that such materials were markers of ascribed status (rather than identity), especially when associated with sub-adults (Hammond et al. 1991:362).

Apart from body decoration, there is also evidence of bodily modification, such as cranial shaping (Hansen 2005:63; Saul and Saul 1991:154) This evidence speaks to the practice of inscribing aesthetics of beauty onto the body that due to their permanence are archaeologically visible. It is more than likely that cranial shaping represents one of many forms of bodily decoration that Early and Middle Preclassic Maya engaged in to mark individuals as specific persons. In fact, at Nakbe, there is also evidence dating to the Middle Ox phase (800–600 BCE) of dental incision and imported hematite inlays (Hansen 2005:63; Mata Amado and Hansen 1992). Similar decoration is found at Cahal Pech (Healy, Cheetham et al. 2004:120), Altar de Sacrificios (Willey 1973a:28), and Seibal (Tourtellot 1990: table 1). Furthermore, roller stamps were recovered from the fill of a Middle Preclassic version of Str. B1 at Blackman Eddy (Brown 1997) and at Cuello (Hammond 1991b:180; 2006). These items suggest that less permanent forms of bodily decoration were also well within the range of acceptable practices at this time. Both cranial shaping and tattooing would have provided mechanisms to symbolize different social personas.

The existence of these nuanced roles and social personas suggests the development of an increasingly complex domestic context. Decoration, ornamentation, body posture, and skeletal modification were all used to distinguish individuals by roles, which were defined only partly by age and sex. Although age and sex are the most widespread forms of social distinction, the Middle Preclassic data suggests that these distinctions were becoming increasingly materially elaborated. The material culture associated with these personas—figurines, stamps, clothing, shells, jadeite, hematite—suggest that a complex suite of practices of exchange, production, and expertise underpinned the formation of these social personas. These data suggest that the social relations that composed the domestic sphere of society expanded to create non-kin-based social roles.

Religious Specialists

The religious specialist, or shaman, represents another social persona that develops in this period. Much has been said regarding the presence and relevance of such figures in contemporaneous Olmec society (Furst 1995; Reilly 1995a). Therefore, the idea that such individuals would be of equal relevance to the understanding of Middle Preclassic Maya communities seems plausible. In fact, Late Preclassic kingship in the Maya lowlands was initially interpreted as based on the assumed prevalence of charismatic shamans from previous periods (Freidel and Schele 1988a).

In terms of the ritual toolkit from the Middle Preclassic, there is some evidence for the use of specialized materials. At Cahal Pech, the round structures considered to be public stages for ritual were covered with copal (Aimers et al. 2000). Figurines from several sites appear to represent individuals undergoing spirit possession. A blood-letting tool and a stingray spine at Blackman Eddy (Garber et al. 2004c) also attest to some degree of ritual activity. Finally, an enigmatic burial consisting of a shell mask and trumpet from Uaxactun (Hendon 1999:107) might be evidence of a ritual specialist. In terms of the costuming, Hendon (1999:107) suggests: "the role of shell objects as valuable and symbolically important costume elements or offerings gives significance to the abundance of shell found in the Group E Middle Preclassic midden deposits."

Finally, several bark-beaters have been recovered from Middle Preclassic contexts at Cuello (Hammond 2006) and K'axob (McAnany and López Varela 1999). Since these objects were used for the manufacture of bark paper, they were, in later periods, associated with scribal and ritual activities. Even though there is little evidence of writing in this period, the manufacture of paper could indicate ritual activity. This paper could have been used to collect blood for ritual burning, or to provide a surface for designs from cylinder seals.

These materials hardly provide enough information to constitute a comprehensive interpretation of the shaman's role in Middle Preclassic society. However, they do strongly suggest the existence in Middle Preclassic Maya society of a shaman or ritual specialist who commanded some degree of local authority—certainly enough to obtain items of foreign origin. The ability to maintain contact with and manipulate the products of distant places is seen as reflective of a command over the sacred world as well (Helms 1994).

One question that remains irresolvable given the current nature of the evidence is the extent to which the ritual specialist was a permanent member of local groups or an itinerant specialist. In the latter case, their peregrinations would allow them contact with and access to foreign goods, thereby rendering them "more than shamans…questing for knowledge and spiritual power. They took on the role of trading partners and the social elite in a regional economy" (Freidel 1995:4). Considering modern ethnographic examples (see Vogt 1969), it is just as likely that small villages would have counted on a particular shaman for the community.

Perhaps in the dispersed community of Copan, the shaman represented the most centralizing figure of the region (Cummins 2007). The development of an esoteric knowledge and access to exotic goods resulted in social authority. The shaman would be the center of non-kin-based social relations—and for much of Copan's history, perhaps the only social figures of the kind. In other parts of the Maya lowlands, the ritual specialist would have numbered among several social personas whose social relations would have stepped out of the idiom of kinship and descent.

Ballplayers, Warriors, Architects

In neighboring regions such as the Pacific coast, the ballgame was played in formal courts from the middle of the 2nd millennium BCE onward (Hill and Clark 2001). Some of the earliest ball courts in the Maya lowlands date to the Late Preclassic, from northern Belize, Cerros (Scarborough et al. 1982), and Colha (Eaton and Kunstler 1980), and the Copan region (Los Achiotes; Canuto 2002) where Middle Preclassic populations existed. In addition, ball courts recently documented in the northern Maya lowlands, dating to the Middle and Late Preclassic (Anderson 2011), suggest that masonry ball court architecture perhaps had a deeper history in that region. The game itself, as modern ethnographic studies (Leyenaar 1978, 2001) show, can be played without permanent architectural markings and could therefore have been played for centuries without leaving much of an architectural signature.

Evidence drawn from ethnohistoric sources suggests the game gave leave to a series of other activities, such as gambling among spectators, social competition between rival groups, and sponsorship of ball court construction and events (Hill and Clark 2001). The ballgame would enforce differences between centers while fostering a sense of *communitas* among the groups within a single center. The game, the related rituals, and the accompanying activities legitimized the meaningfulness of the center as a source of social identity. It is perhaps quite unlikely that there existed full-time ballplayers in the Middle Preclassic of the Maya lowlands; however, it is not impossible to consider this activity as part of community-level practices that provided the opportunity for distinction and status through a series of relationships completely foreign to the household or descent group. Whether the individual in the Middle Preclassic was considered a social persona (as in the *aj pitz* of the Classic period) remains unlikely; nevertheless, it is possible that the game's early disciples did fashion forms of social interaction within the social group that were not kin based.

Another social persona seen with regularity in later Maya periods is the warrior. On mural paintings, painted vessels, figurines, and stone monuments, the warrior is ubiquitous in the Classic period. For the Middle Preclassic period, however, there is some evidence of inter-center strife (Brown and Garber 2003), but no concomitant expression of a particular warrior class. While it is unlikely, like the ballplayer, that such a social persona was developed to be a full-time responsibility, it is possible that such a cadre of individuals was developing during this period and providing an opportunity for distinction and accomplishment outside the parameters of kinship social relations.

Finally, the monumental constructions at Nakbe speak to an increasing level of specialization in the arts of construction. The quarrying techniques, the apron-moulding innovations, and the monumentally sized buildings are all indications that some degree of expertise, perhaps resulting from full-time involvement, was developing by the end of the period.

Since the "architect" does not exist as a social category even during the Classic period, the attribution of a technical specialty as a social persona might not be warranted. However, the social relations that they likely engaged in when coordinating labor crews, designing buildings, and planning resource acquisition were likely not to have been encompassed by kin or descent relations.

Summary

It is clear from these examples that Middle Preclassic society in the Maya lowlands was infused with different personas, actors, roles, and personages. Whether they were distinguished by age, gender, or both, heavy symbolic investment was made to develop and sustain these types of distinctions in society. There existed no faceless peasants susceptible to the manipulations of a singular individual. Rather, multiple social roles were developed that were charged with expectations that required individuals to fashion new non-kin-based relations. These social personas were not necessarily identified in the figural or plastic arts of the time. Nevertheless, throughout the Middle Preclassic period, an increasing number of social roles, greater attendant social expectations, and the ever-narrowing pool of competent individuals capable of meeting those expectations conspired to create offices, ranks, and status groups whose idiom of social integration was separate from those of kinship and descent.

Polity Is Where the Heart Is

Recalling Watanabe's "place, people, and premise" (1992:12) alliterative trinity, it is clear that "premise" (kin-based social structure) and "people" (social roles) were in flux during the Middle Preclassic period. As a consequence, there was an added premium placed on the creation, elaboration, and reproduction of "place." In fact, the development of place appears critical to the concomitant development of corporate hierarchies and non-kin-based personas in the Middle Preclassic period.

Place-making was accomplished through the repeated construction of a domestic complex in one place. At Cuello and Cahal Pech, for instance, the progressive formalization of central patios created a central locale. Furthermore, the decorative elaboration of structures composing these residential complexes—such as the red paint at Cahal Pech, the red painted plaster at Altar de Sacrificios, the apron molding at Nakbe, and the architectural masks at Blackman Eddy—was a strategy to centralize activity in one place. Place-making also involved a cycle of ritual practices—reverential dedication, feasting, and ritual termination—that accompanied the construction, use, and cancellation of these centrally located architectural complexes that would have provided other opportunities for community formation. Moreover, the scale of the constructions (especially those of Nakbe) at these places involved some degree of communal labor, suggesting that the construction events also involved community building.

Non-domestic structures were also constructed as part of the domestic residential complexes at Cuello, Cahal Pech, and Blackman Eddy. Sites such as Tikal, Uaxactun, Nakbe, and Cival had ritual structures in the settlement center surrounded by sufficient open space to accommodate crowds. Every Middle Preclassic site had some feature that involved either ancestor burials, sacrificial victims, or dedicatory offerings in public/open areas (see Chapter 6, this volume). These activities created public stages (see Inomata 2006b) for ceremony, feasting, ritual, and exchange. The Middle Preclassic round structures found throughout the lowlands—Cahal Pech, Altun Ha, Colha, Uaxactun (to name a few)—have been interpreted as raised stages for the communal viewing of important rituals (Aimers et al. 2000:82). These sites "can be seen as engines for the creation of time, through the repetition at them of ritualized acts" (Gosden and Lock 1998:6).

Place-making also involved the inverted practices of site destruction. Evidence from Blackman Eddy (Brown and Garber 2003) of the violent dismantling and burning of one of the central ceremonial buildings, the mass burial of primarily young adult males and the burial of two decapitated sacrificial victims in the fill of a major construction event at Cuello (Hammond 1991d), and the caching of a decapitated head in a bowl at Cahal Pech (Aimers et al. 2000) suggest that Middle Preclassic life was punctuated by violent events that led not only to architectural elaboration but also destruction of emergent central places. Although the evidence is far too limited to suggest some regional organization of these events, it does speak to the development of rivals, challengers, factions, and even enemies

As sites of display, performance, and persuasion, Middle Preclassic centers were where explicit community identities were forged. The communal labor required to build these central locales triggered a common sense of belonging that might even have crossed descent group boundaries. Through an increasingly complex network of social personas calling for group action, subsequent rituals, performances, and gatherings at these spaces would further inculcate a sense of the social collective, especially as a function of social memory. Connerton (1989) notes that the development of collective memory is sustained within the rubric of performance that enacts a master narrative that conveys proto-typical behavior and synchronizes it among the larger social group. In other words, as Connerton states, "to study the social formation of memory is to study those acts of transfer that make remembering in common possible" (1989:39).

Public display was useful to the development of tradition: "By engaging in persuasive display, then, all one is really doing is calling on others to imitate actions that are implicitly being said to have already been carried out in the past" (Graeber 1996:9). The chiefly postures, the paraphernalia of office, and the specialized ritual objects were displayed to develop and enact a master narrative that fostered the development of an idealized, imagined community marked empirically by "place" and the periodic spatial contiguity of "people" at communal gatherings, and not necessarily based on descent affiliation. To this extent therefore the Middle Preclassic center was becoming the heart of a symbolic community—a group that thought themselves into difference, a polity.

NOT WINDMILLS, BUT PRECLASSIC PERIOD GIANTS

The data relating to the Middle Preclassic period is suggestive but hardly conclusive; more research will only provide better opportunities to construct a much more comprehensive model for the development of Maya social complexity. This essay focused on internal, socially driven change—that which arises from the continuous interplay of structure and practice. Clearly there are external factors such as the environment, neighboring groups, demographic factors that likely played important roles in the manner in which the Middle Preclassic Maya developed over nearly a millennium before the Late Preclassic period. My focus on the internal mechanisms of change was not meant to indicate the irrelevance of these other potential factors. However, it is rare that material conditions of existence trigger only one predictable social response; and Maya society was no different.

In this chapter, I suggest that the shift away from the logic of kinship and descent occurred in the Middle Preclassic period. However, I took pains—with an outline of an *emergent lineage-community* model—to demonstrate that this change was an amplification rather than wholesale rejection of past forms of social organization. Furthermore, the model also explains how lowland Maya social inequality did not require external impetus for its development. Rather, the changes that would be the foundation stones for a Late Preclassic social structure based on divine kingship, polities, and a regional political economy were deliberately extracted from the quarry of kinship and descent group relations during the preceding centuries of the Middle Preclassic period.

11

Ideology and the Early Maya Polity

SIMON MARTIN

While the last two decades have produced a sizeable influx of new data on the Preclassic Maya, we still find ourselves asking rather fundamental questions about the milieu from which the earliest polities emerged. Growing appreciation of the sophistication and scale of Preclassic achievements has understandably provoked renewed questions as to the political, cultural, and economic innovations that gave rise to them. Our greater understanding of succeeding Classic-era societies—whose material remains are far more plentiful, and where iconographic and epigraphic studies have proved especially productive—has only thrown the *terra obscura* of the Preclassic into greater relief.

The charge of this essay is to discuss the ideological underpinnings of early Maya polities. Wider interest in the topic has its roots in the turn away from materialistic explanations in archaeology toward cultural factors and, more specifically, the exploration of past mentalities. There is still a vein of thinking that views ideology as the tool of a self-serving and exploitative elite, but most scholars now prefer to see it in broader and more complex terms as a structural component active at all levels of society (see Demarest 1992b). In a dramatic migration from ideology's once peripheral status, some have come to see it as a primary factor in social formation, including the founding of early states (e.g., Chang 1983). The issue of ideology in early Maya polities has attracted the interest of a number of writers, each with their own datasets and research questions (e.g., Coe 1981a; Estrada-Belli 2006a; Freidel 1981, 1992; Freidel and Schele 1988a, 1988b; Grove and Gillespie 1992; Guernsey 2006; Hansen 1992a; Love 1999b; Reese 1996; Schele 1985; Schele and Miller 1986:103–10; Stuart

2005; Willey 1973b, 1977:416–17). The task at hand is to examine the issue in light of current evidence, to see in what ways our understanding might be expanded, refined, or revised.

"Ideology" will be treated here in its narrow sense as a system of beliefs that encompass the moral and spiritual basis for governance. Lying at the nexus between the religious and political worlds, ideology is always something more than a formulation of power; it actively generates social cohesion and identity. Hand-in-hand with the emergence of more populous and internally differentiated communities—with their inherent potential for divisiveness—came both the institutions of political order and the ideas that gave them validity. While the minds of people were never "empty," a blank slate on which new constructs could be written (Carneiro 1972:198), the scale and complexity of these societies would minimally require a reconfiguration of existing understandings. One of the recurring features of an ideology is its ability to adapt to changing circumstances, while at the same time presenting itself as natural, traditional, and immutable. The world over, these systems work by harnessing supernatural forces that, as unimpeachable sources of authority and legitimacy, are used to frame pragmatic goals. The distinction between sacred and the secular begins to loses its meaning within the bounds of ideology, since its aim is a "total vision."

SOCIAL EVOLUTION AMONG THE MAYA

The archaeological understanding of Maya social development has been enhanced and elaborated in recent years, but despite some regional variability its trajectory remains much the same. Permanent settlements and their agrarian hinterlands were established during the Early Preclassic (2000–1000 BCE), initially in coastal zones but ultimately penetrating all parts of the highlands and the lowland peninsula. In the Middle Preclassic (1000–400 BCE) there are increasing signs of interaction with contemporary societies in western Mesoamerica, and cultural traits that we see as distinctively Maya become evident. Monumental construction becomes a feature of the larger settlements taking shape at this time, and signs of social differentiation increase. The Late Preclassic (400 BCE–200 CE) saw a marked escalation of these trends, with the building of architecture on a scale comparable to, and often exceeding, that seen elsewhere in Mesoamerica. A century or two into the 1st millennium CE, however, a range of centers, including the very largest, were abandoned, and their immediate regions suffered a precipitous fall in population—justifiably dubbed the "Preclassic collapse."

Over the next two or three centuries some of the surviving centers, plus others newly founded, developed a set of new forms and practices—most notably an emphasis on monuments with hieroglyphic texts—that characterize the Classic period (200–900 CE). After a slow start in the Early Classic (200–600 CE), when the population may have taken time to surpass Late Preclassic levels, the pace of development quickened as the Classic phenomenon spread from the central lowlands to more peripheral parts of the Maya realm—with the notable exception of the highlands and Pacific piedmont. During the Late Classic (600–800 CE) populations reached their peak and the lowland landscape was largely filled by a sizeable number of distinct, structurally autonomous political centers. With few signs of an impending crisis, this system experienced its own unraveling at the onset of the Terminal Classic (800–900 CE)—with abandonment beginning in the central lowlands, but overtaking the northern zone by century's end.

We can essentially take two positions regarding the Preclassic–Classic transition, characterized (or caricatured) here as *revolution* versus *evolution*. The first takes the evidence of distinction between the two eras as indicative of fundamental and far-reaching change. Here the onset of the Classic follows a profound cultural failure and marks a seismic shift in the governing principles of polities, one which gave rise to new and significantly different forms. The counterview takes the position that many if not all features of the Classic tradition were present within the Preclassic and, while major changes took place, the continuities are as important as the disjunctions. It perceives an on-going dynamic in which periods of stability and growth are interspersed with less predictable bouts of turbulence and transformation—a form of "punctuated equilibrium" if you will. I shall return to these contrasting paradigms, since ideology takes a pivotal role in each: either as the means to effect a radical metamorphosis, or as an adaptive response to social crises.

The labels "Preclassic" and "Formative" were coined as part of an overt evolutionary scheme and serve to define this period in contrast to the succeeding "Classic" (Willey and Phillips 1958:149–50). For all the weaknesses of this perspective it expresses a certain truth, in that we continue to investigate the earlier and least-known eras by reference to later, best-known ones. There are many ways in which we can, and do, study the Preclassic period "on its own terms"; but if we are interested in symbolic systems, then it is both legitimate and practical to trace form and practice back in time. This is not to presume that ideas are static and unchanging, only that where continuities of symbolic expression are evident our initial assumption—to be confirmed by further testing—should favor corresponding continuities of thought over disjunction (cf. Kubler 1962; Willey 1973b). If evolution better describes the transition, then we should be able to interpret important aspects of Preclassic ideology from what we know of the Classic. If, on the other hand, revolution better describes the situation we may find ourselves in a foreign land, obliged to reconstruct an ideological program solely from Preclassic materials.

SOURCES ON EARLY MAYA IDEOLOGY

Ideologies are so extraordinarily complex, so densely woven from abstract and unstated understandings, what hope can we have of retrieving those of long-extinct cultures? Our access to past mentalities is effectively restricted to symbolic expressions: be they the explicit communications of art and writing or the more implicit signals we might detect in the design or spatial dimensions of architecture and ritual deposits. The relationships between artifacts and the ideas that inspired them are never direct or unproblematic. To achieve any success we must rely on closely argued, comparative approaches—eschewing, as much as we can, intuitive responses necessarily grounded in our own time and culture. The obstacles remain considerable. The base of excavated material is restricted, the artistic conventions complex, the examples of writing are both scarce and hard to comprehend. Yet research over the past two decades has cumulatively added to our knowledge of Maya symbol systems and, within appropriate parameters, there are good opportunities for further progress.

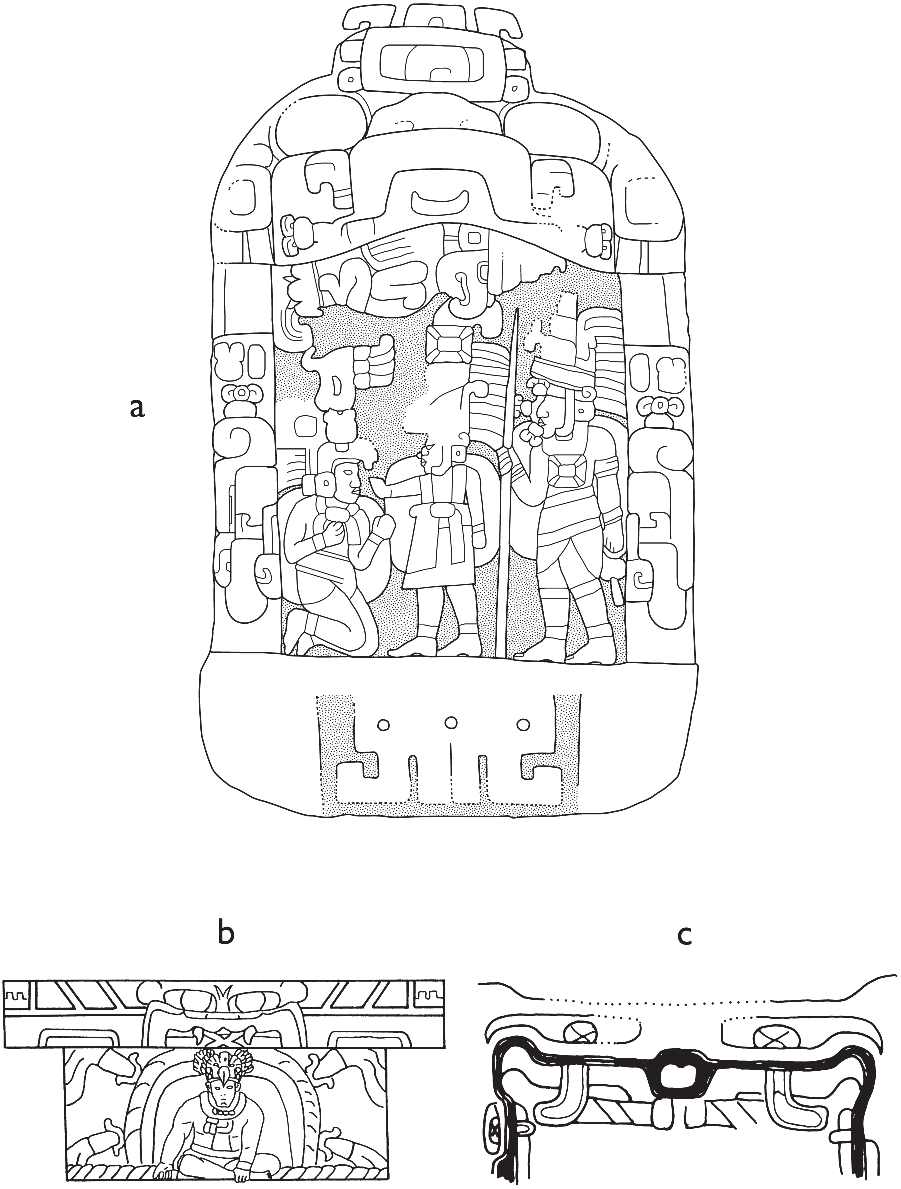
The most iconic examples of Preclassic art are undoubtedly the collection of large stucco-modeled façades applied to public buildings, almost always paired on either side of a central stairway. They include examples excavated at El Mirador, Nakbe, Cerros, Uaxactun, Lamanai, Cival, Tikal, Calakmul, Chakanbakan, and Itzamkanac (Carrasco and Colón 2005; Coe 1990; Cortés de Brasdefer 1994; Estrada-Belli 2006a; Freidel 1986b; Hansen 1992a; Pendergast 1981; Ricketson and Ricketson 1937; Valdés 1987, 1988; Vargas 2001). The freestanding stela first emerged in western Mesoamerica during the Middle Preclassic, appearing in the Maya lowlands at El Mirador, Nakbe, Cival, Cuello, and San Bartolo, and in the highlands and piedmont at Izapa, Takalik Abaj, El Baúl, Chocolá, Chalchuapa, El Naranjo, El Jobo, and El Portón, among others (Arroyo 2010b; Estrada-Belli 2006a; Guernsey, Clark, and Arroyo 2010; Hammond 1982; Hansen 1991, 1992a; Jones 1986; Norman 1973, 1976; Parsons 1986, 1988; Porter 1992; Sharer and Sedat 1973; Stuart 2005). These centers and several more also have a range of three-dimensional sculptures, to which we might add rock carvings, such as the one in Loltun Cave (Thompson 1897). The earliest stelae were either plain or decorated in some fugitive medium— paint or possibly even stucco—but later ones were carved with mythological scenes or depictions of rulers. These portrait stelae subsequently acquired dates and hieroglyphic texts, introducing a pattern that would characterize the whole of the succeeding Classic period. Some smaller, portable objects—especially items of adornment in greenstone, bone, or shell—can be assigned to the Preclassic on stylistic grounds, although few have known provenience or dating information (e.g., Coe 1973b:25–27; Schele and Miller 1986:79, 82–83, 119–20, 227; Mora-Marín 2001; Fields and Reents-Budet 2005b:191). A few paintings from the Preclassic have been uncovered in deep excavations (e.g., Coe 1990; Valdés 1995), with the most dramatic by far being the recent finds at San Bartolo, Guatemala (Saturno 2009; Saturno, Taube, and Stuart 2005a; Taube et al. 2010).

The following sections take differing iconographic and epigraphic approaches to the issue of ideology. They will focus on selected themes and explore the relationships between theology and authority in early Maya polities, with a collective discussion of their implications at the end.

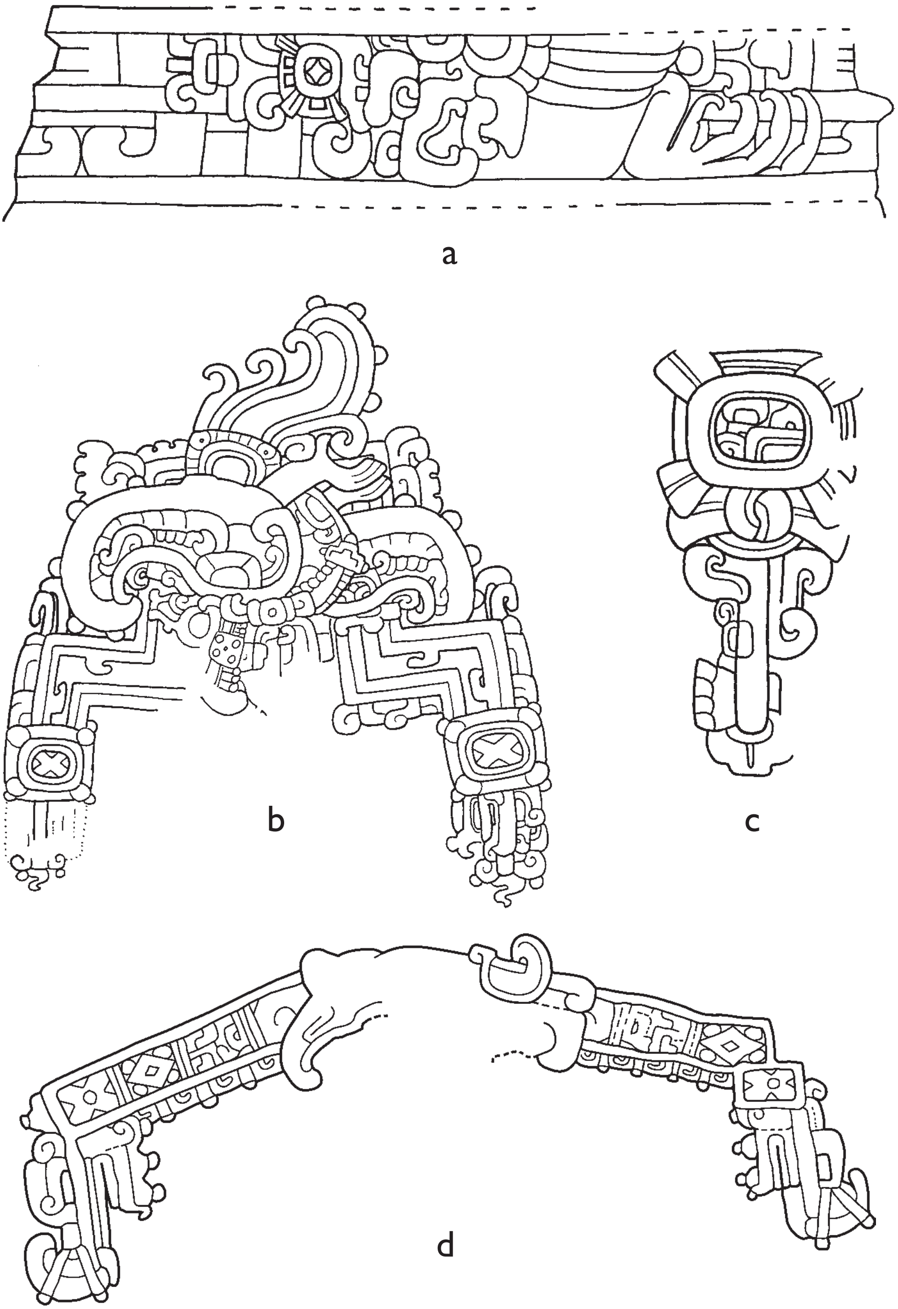
Iconography: Cult of the Great Bird

A striking feature of Preclassic art is the frequency with which we see avian imagery, either in overtly mythological contexts or in the costuming of lords. New discoveries and identifications have greatly expanded this pattern, which must now be seen as pan-regional in scope. Most or all can be linked to the Principal Bird Deity, first described by Lawrence Bardawil (1976). This character emerges in the Middle Preclassic and can be identified in several Mesoamerican zones (Cortez 1986:17; Taube et al. 2010:33, 35–39; Nielsen and Helmke, forthcoming). At the late Olmec site of Tres Zapotes, Stela D presents this avian god within a celestial program that would be repeated throughout the Maya area (Norman 1976b:28; Quirate 1976:77–78; Cortez 1986; Taube 1996b:92–94) (Fig. 11.1a). We see the bird inverted—equipped with arms to highlight its anthropomorphic qualities—and emerging from the mouth of a monstrous, front-facing jaguar head. In Karl Taube's analysis, this feline aspect to the sky is seen in other examples of Olmec iconography, for example on La Venta Altar 4 and on the "Olmec-style" painted mural from Oxtotitlan (Fig. 11.1b, c). Prominent features are its flared fangs, elements that would be abstracted into hooked devices over the coming centuries. At Tres Zapotes a bicephallic, blunt-nosed serpent hangs down of either side to frame the image of three lords. Its heads seem to emerge from behind the jaguar's earflares, although in earlier times the body of the snake is held in its jaws.[1]

This descending Principal Bird Deity motif appears in the Maya lowlands at San Bartolo, not only in the murals but also on a stucco frieze on the outside of the building that houses them (Taube et al. 2010: fig. 23b) (Fig. 11.2a). In the Pacific piedmont it occurs on stelae at Takalik Abaj and Izapa (Figs. 11.2b, 11.4b). Here the celestial symbolism from Tres Zapotes is repeated, although the retreat of the jaguar's face now leaves the fangs and earflares—rather like the smile of the Cheshire Cat—as disembodied motifs. This program continues to evolve in Maya hands, transforming some devices and introducing others. The earflares, for example, come to enclose the face nicknamed the "Shiner"—identified by its squint eyes, T-shaped tooth, and "mirror" markings, or by its attenuated form, a simple diagonal line (Stuart 1988:201–3; Saturno, Taube and Stuart 2005a:38–41; Taube 2007) (Figs. 11.2c, 11.3a).[2] Emerging evidence suggests that this motif conveys ideas of brilliance and luster associated with jade and other polished stones. A symbol of preciosity, it also seems to capture notions of radiance, perhaps explaining why it is sometimes replaced by the *k'in* "sun" sign (Fig. 11.2b). It is unlikely to be coincidental that the Classic Maya sun god K'inich Ajaw carries features of the Shiner, including its squint eyes and T-tooth. In an important transitionary stage of the sky motif attested on Takalik Abaj Altar 12, the Shiner head is transferred to the fanged-band, joining a group of embedded emblems that also include the sun and stars to produce one of the earliest known examples of the Classic sky-band (Fig. 11.2d). The serpent heads terminating the device remain here, but by Classic times they are replaced by those of eagles (Taube 2007). The bicephallic serpent continues as an independent element that the Principal



11.1. Origins of the Maya sky-band: a) Tres Zapotes Stela D (drawing by Simon Martin after James Porter); b) La Venta Altar 4 (drawing by Kent Reilly); c) Oxtotitlan Mural (detail) (drawing by Karl Taube).



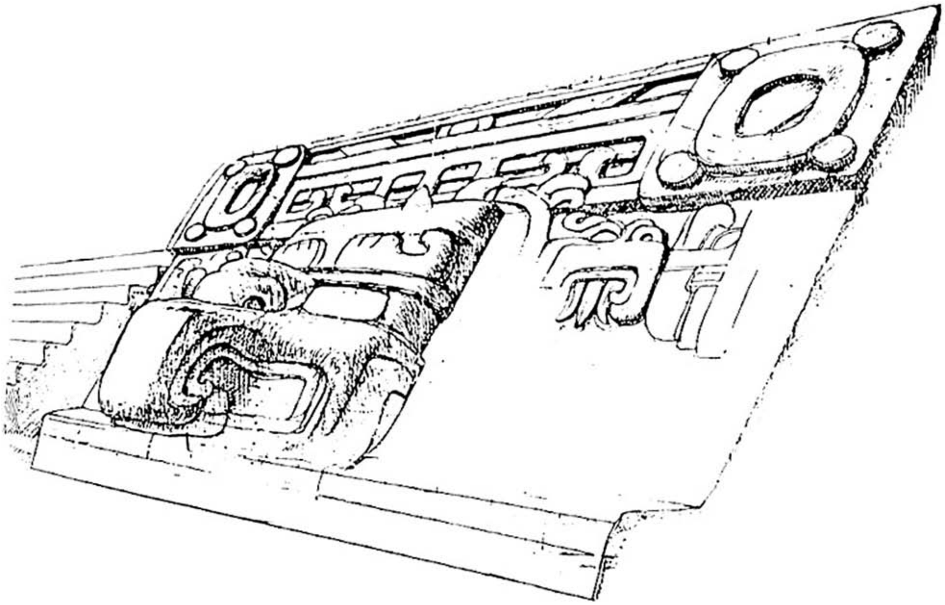
11.2. Descending Principal Bird Deity and evolution of the sky-band: a) San Bartolo Structure 1-sub (exterior stucco frieze) (drawing by Karl Taube); b) Takalik Abaj Altar 13 (drawing by Karl Taube); c) Kaminaljuyu Altar 9 (detail) (drawing by Karl Taube); d) Takalik Abaj Altar 12 (detail) (drawing by Simon Martin after James Porter).

Bird Deity holds in its beak (Fig. 11.4a), becoming a standard accoutrement in its Classic representations.

These elements allow us to interpret the façade masks such as those of Nakbe and Cerros, where the bird's head is framed by the same celestial devices (Hansen 1992a; Reese 1996) (Fig. 11.3a, b). In fact, identical features appear in battered form at Uaxactun, Tikal, Lamanai, and elsewhere—where what is often called the "long-lipped head" is in fact the beaked visage of the great bird.[3]

It is hard to over-emphasize the importance of the San Bartolo murals as a window into early Maya cosmology and foundational myths (Saturno 2009; Saturno, Taube, and Stuart 2005a; Taube et al. 2010). No other artwork, from any period, sets itself the task of visualizing the structure of the Maya universe and the core narratives of its creation. What we find is startlingly familiar: the same characters and the same events recur throughout the Classic era, with certain features that continue into the Postclassic and even the Colonial periods. Much is oriented around the story of the Maize God and the cycle of corn cultivation—a central paradigm of life and death in Mesoamerica. His birth, death, and rebirth are all represented, and he is revealed as the agent behind several key primordial events, including the origin of human sustenance. Another major theme establishes the four corners of the world with the placement of cosmic trees. Before each a young lord performs a penis perforation and makes an offering appropriate to the direction at hand, following a sequence of fish, deer, turkey, and incense repeated in the same context in the Dresden Codex, which was created well over a millennium later (Taube et al. 2010:28). On the crown of each tree sits a Principal Bird Deity—with subtle distinctions that appear to define separate aspects—each presiding over a cardinal quadrant of the cosmos (Fig. 11.4a).

Scholars have long associated the Principal Bird Deity with the monstrous bird Wuqub Kaqix "Seven Macaw" described in the 16th-century K'iche' epic of the Popol Vuh (Tedlock 1985; Christenson 2003). The initial evidence for this came from Izapa, whose monuments present not the familiar royal portraits but fragments of myth frozen in stone (Norman 1976b:327). The scene on Izapa Stela 2 has been linked to the episode in which the Hero Twins shoot the arrogant bird—a solar imposter—from its tree, while Stela 25 shows the plot point in which the bird rips off the arm of one brother, both episodes described in the Popol Vuh (Lowe, Lee,



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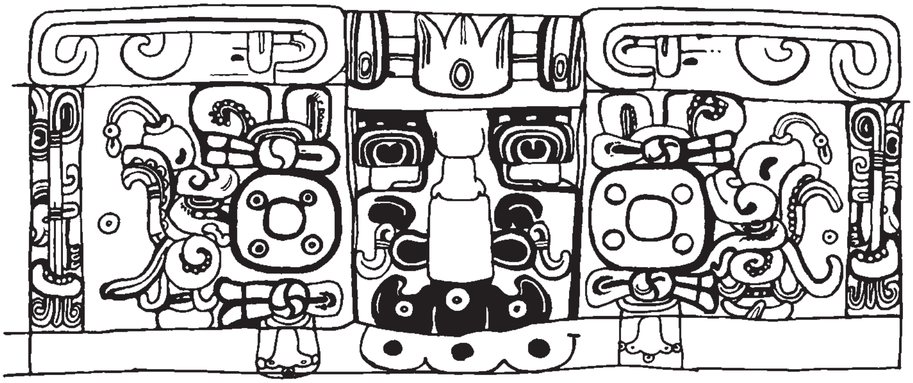
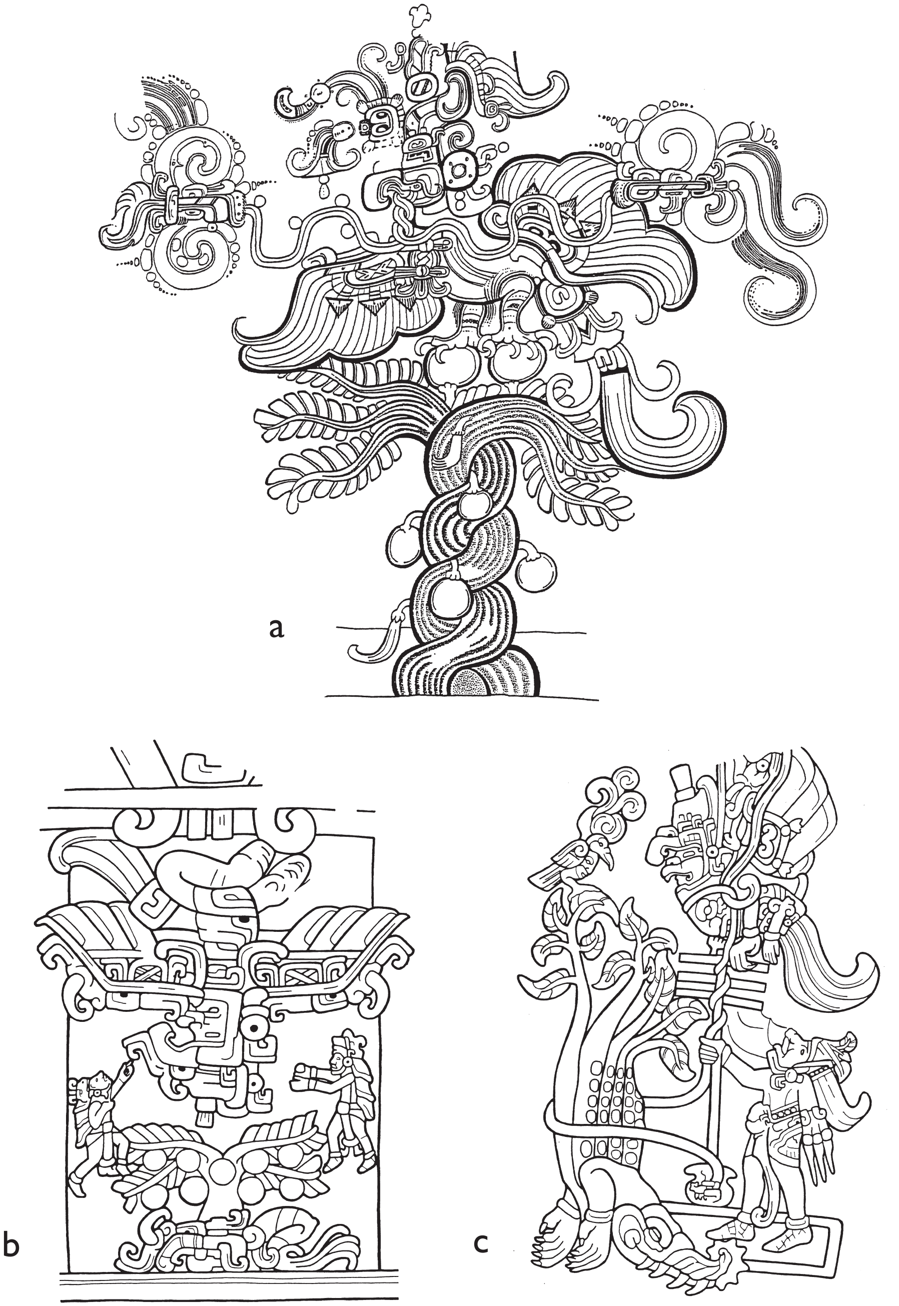


b

11.3. Principal Bird Deity masks: a) Façade mask of Nakbe Str.1 (drawing by Terence Routledge, courtesy of Richard D. Hansen); b) Façade mask of Cerros Structure 5C-2nd Upper (drawing by Linda Schele).

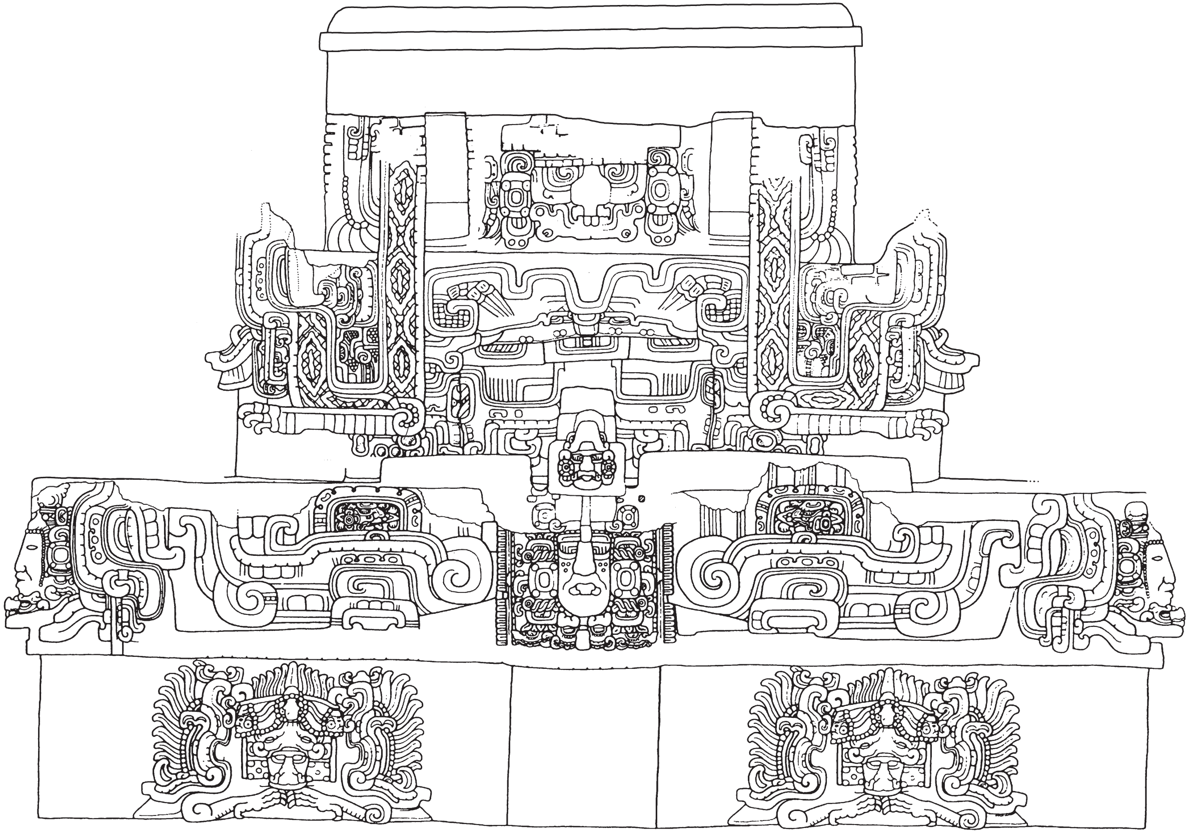


11.4. Principal Bird Deity in narrative: a) San Bartolo Str.1 sub-1 West Wall (drawing by Heather Hurst); b) Izapa Stela 2 (drawing by Ayax Moreno, New World Archaeological Foundation [NWAF]); c) Izapa Stela 25 (drawing by Ayax Moreno, NWAF).

and Martínez 1982) (Fig. 11.4b, c). There the brother is called Hunahpu "One Lord," making him the direct descendent of the prototypical ruler Juun Ajaw "One Lord" who features strongly in Classic Maya art and writing. Indeed, the very same tale can be traced right through the Classic era (Coe 1989b; Cortez 1986; Guernsey 1997; Robicsek and Hales 1982:56–57; Stone 1983), with varying degrees of visual elision between the Principal Bird Deity and his manifestation as a macaw (Martin 2006a).

Should the façade images of the great bird be taken as emblematic depictions or as *pars pro toto* narratives? Aid here comes from an Early Classic building façade, the remarkable entablature of Rosalila, a now-buried version of Copan Structure 16 (Agurcia 2004). All four of its sides feature stucco-modeled bird deities which combine features of a quetzal and macaw with the head of the sun god K'inich Ajaw—a direct reference to the name of the Copan dynastic founder K'inich Yax K'uk' Mo' "Radiant First Quetzal Macaw" (Fig. 11.5). Something more than an attractive combination of prestigious birds and the Sun God, the name seems to be derived from and celebrate a particular myth or symbolic relationship connected to the Principal Bird Deity (Martin 2006a).[4] Rosalila presents us with a complex engagement between mythology and royal identity—seemingly part of a contrived equivalence that sets founders in a special supernatural context (of which see more below) (Fash 1991; D. Stuart 1992). The narrative sense here emerges from the pictured descent of the Rosalila birds—their serpent head wings are inverted and, where they survive, their wing feathers are swept upward.[5] They appear to swoop down from a mountain depicted on the roof-comb—in whose center we see a form of the Shiner familiar from Preclassic façades.

The descent of the Principal Bird Deity is described in inscriptions from the Classic period, where the verb employed is **EHM** "to descend, go down" (Zender 2005:8–11). On one unprovenienced painted vessel it clearly refers to the defeat of the bird god, captioning a scene in which it is shot from its tree by a blowgun pellet fired by Juun Ajaw (Robicsek and Hales 1982:56–57). This is widely taken to be an explicit counterpart to the downfall of Wuqub Kaqix in the Popol Vuh. On another vessel the *ehm* term marks a further descent of the bird, this time motivated by a duck-billed wind deity (see Kerr 2000:1010)—although Juun Ajaw and his brother are involved here too, attending the court of God D in some unknown portion of the story. The dates ascribed to both *ehm* events are suspiciously similar

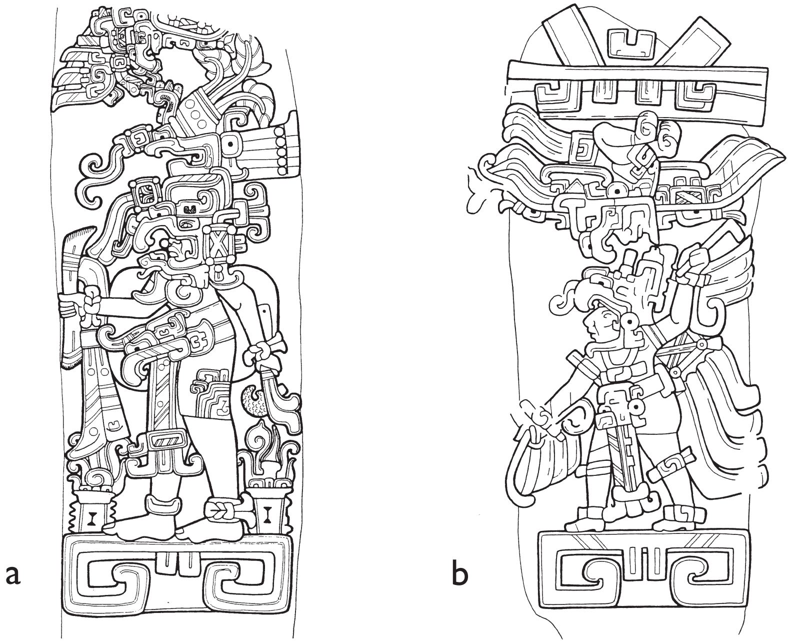


11.5. Copan Structure 16, Rosalila Phase (drawing by Barbara Fash).

and could well indicate that the same event is described (Zender 2005:11). The self-same duck-billed figure appears some 800 years earlier on the West Wall of the San Bartolo mural, where he dances and calls out to attract the bird's attention and offers up some rounded object, apparently a gift or lure (Taube et al. 2010:48–49). The following scene is incomplete but shows the Maize God dressed in a bird costume in the act of spearing something (Saturno 2009:127). His victim survives only as the tip of a flailing claw, but presumably this identifies it as the great bird (Saturno 2007a), specifying an additional defeat, this time at the hands of a "disguised" Maize God.[6] This could well relate to a scene recovered in fragments from a demolished portion of the paintings, which shows the once-mighty bird deity limp and lifeless, hung over the back of the one of the young lords who otherwise offer sacrifices to the world quarters, themselves related to Juun Ajaw "One Lord" (Saturno 2009:123, fig. 9; Taube et al. 2010:19, fig.12). Some versions of the story may be elaborated, others truncated, and the second instance could simply be the prologue to the bird's misfortune. It is also possible that there are multiple stories involving the descent of the great bird, which might easily, for example, be a trope for recurring cosmological events.

The identification of kings with the Principal Bird Deity is also reflected in the masks, headdresses, and feather displays that turn them into embodiments of the great bird (Cortez 1986; Guernsey 1997, 2006:91–117). Kaminaljuyu Stela 11 (Fig. 11.6a) is perhaps the most notable early example of lords costumed in this way, but as Bardawil first noted, such attire forms a continuum across the two epochs, and kings continue to don masks of the great bird in the Classic Period—although by that time only as part of a wider repertoire of divine identities.[7]

To proceed further is to ask complex and difficult questions about the nature and meaning of the great bird and, most especially, its relationship to God D—the famed "paramount god" of the Maya, long equated with the Colonial period Itzamna (Seler 1990[1887]:98). It was Nicholas Hellmuth (1987:303–12) who first explicitly established the connection, noting that the elderly God D wears the same set of diagnostic motifs as the Principal Bird Deity. He further suggested that the old god transforms himself into the bird, an apotheosis that follows his symbolic death (1987:365). Several authors have expanded on this view of the bird as an avatar, manifestation, or co-essence of God D. Julia Guernsey has produced a comprehensive study of the monuments at Izapa and includes an extended section on



11.6. 11.6. a) Kaminaljuyu Stela 11; b) Izapa Stela 4 (drawings by Ayax Moreno, NWAF).

the Principal Bird Deity (2006:91–117). She argues that performance and transformation are central themes on Izapa stelae, and that the physical impersonation of the bird through costume and dance evokes the metamorphosis of God D into the Principal Bird Deity. In this way, images showing the bird with a full or partial humanoid face in its jaws show rulers engaged in role-playing.

Yet figures such as that on Izapa Stela 4, with his tied-on wings beneath a descending Principal Bird Deity—here again with a human face between its jaws—may instead refer to the San Bartolo tale (Fig. 11.6b). Thus, rather than a king impersonating the bird, we might have the Maize God in his bird costume, pictured shortly before the spearing event. Furthermore, recent epigraphic work has certain implications for the nature and identity of God D. There is now evidence to indicate that the entity we call God D is a visual fusion between the Principal Bird Deity and the aged deity known as God N. A small but transparent set of glyphic spellings separates the two names and demonstrates that an intricate relationship between them lies at the heart of this complex (Bassie 2002; Martin 2006b). Their very deliberate combination fits a wider pattern of divine hybridity for the Maya that I have described as *theosynthesis*, which in this case involves the aged deity as a presence that pervades or unifies different domains of the universe (Martin, n.d.-a).

Another feature that requires a brief discussion is the linkage between the Principal Bird Deity and the Shiner. Few Preclassic images of the great bird lack the Shiner's face on their chests, where it serves to signal its lustrous, shiny qualities (Figs. 11.2a, 11.4b, 11.4c, 11.6a). In one form or another this motif is applied to the bird throughout the Classic and Postclassic—usually by means of the aforementioned squint eyes and the "mirror" devices on its head and body. This attribute is so consistent and long-lived, one might wonder if the concept survived to the time of the Popol Vuh. Passages here describe the bright, shining qualities of Wuqub Kaqix at length, as the bird boasts of being both the sun and moon (see Christenson 2003:92). It is these pretensions that draw the ire of the Hero Twins and provoke their attack. On Takalik Abaj Altar 30 he bears a *k'in* "sun" symbol in place of the shining head (see Guernsey 2006: fig. 5.3)—a more overt reference, perhaps, to his assuming the role of the sun.[8]

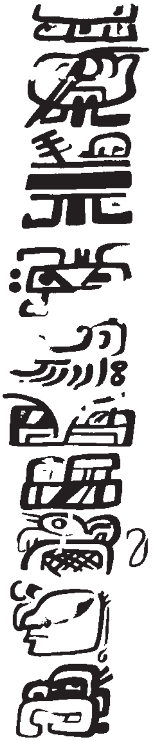
This rather detailed excursion into the iconography of the Principal Bird Deity supports and confirms earlier work, and establishes, I believe, three major points. The first is the prominence accorded to this creature and its mythic narratives. It is by no means the only supernatural theme presented on early monuments, but it easily is the most dominant and diverse in its representations. If we are to understand ideology within Late Preclassic Maya polities then we will need to take on the question of the great bird. The second is the tremendous consistency with which these ideas and their expressions are represented throughout the region. Ranging over great distances and diverse topographical and ecological zones, images of the great bird display a coherence that is not simply pan-Maya, but pan-Mesoamerican. Lastly, there are strong signs that the bird maintained its ideological currency beyond the great transition, retaining its vigor in the rhetoric of Early Classic kings, continuing in some form right up to the Colonial period. At the same time, it was plainly of most relevance to the rulers of the earliest Maya regimes. Who were these rulers and what were their qualities? Here we must turn to epigraphy for the data it can provide.

Epigraphy: Lords, Divinity, and Dynasty

Writing, which is to say a system that encodes language in graphic form, offers a tool of considerable ideological potential. Texts can crystallize oral performance and memory, storing ideas and messages that can be conveyed across space and time—at times traversing continents and millennia. The realization of language as script does more than simply expand its communicative range; it generates unique forms of discourse with their own characteristics, qualities, and connotations. Regardless of the original spur to its invention and its other functions within society, the regimes behind early complex societies consistently used writing to sustain and augment their power. Preclassic Maya texts should provide a window into the self-representation of the governing elite.

Unfortunately our sample of assuredly Preclassic Maya inscriptions is very small, numbering little more than two dozen examples at the present time.[9] Maya writing evolved over the two millennia that it was used, and many of the earliest signs bear little or no resemblance to those we know from later periods. At least some of this obscurity may be the product of the collapse in 100–200 CE. The extinction of some, possibly dominant, script communities could have led surviving ones to innovate to meet the new challenges of a changed political and cultural environment (Houston 2007a). Compounded by the limited sample, this means that paleographic analysis cannot tell very much about the development of style or its relative dating. With the exception of Long Count dates at El Baúl of 36 CE and at Takalik Abaj of 103 and 126 CE —each of which introduces now-illegible inscriptions—we are effectively adrift in time. A further obstacle to reading is the morphosyntactical simplicity of early texts, which lack the elaboration and precision we see in later periods (Houston 2004). Preservation is another problem. Although we have inscriptions on Preclassic stelae at El Mirador, Chalchuapa, El Portón, Takalik Abaj, and Kaminaljuyu—as well as others on the aforementioned portable objects—almost every one is damaged or incomplete. As a cumulative result of all these factors, we lack sound knowledge about the origins and function of writing during the Preclassic.

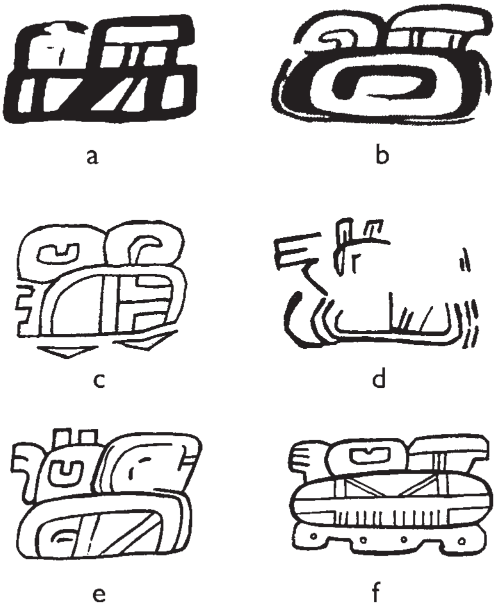
The single most significant contribution to Preclassic Maya epigraphy has come, once again, from San Bartolo (Houston 2006; Saturno, Stuart, and Beltrán 2006; Saturno, Stuart, and Taube 2005). The two extant walls of Structure 1 sub-1 contain a number of isolated captions referring to actors or events in the scenes. The dating of this building to around 100 BCE offers the first real fix for Preclassic paleography. A fragment from a still earlier mural has since been recovered from sealed fill, establishing that there was a fully formed Maya script in use some centuries before (currently set at 400–200 BCE) (Saturno, Stuart, and Beltrán 2006:1282) (Fig. 11.7). The San Bartolo texts are as hard to read as any others from this era, but it is notable that the two longest, including the earliest, include the term **AJAW** "lord" (Lounsbury 1973) (Fig. 11.8a, b).



11.7. Text from San Bartolo dating to 400–200 BCE (drawing by David Stuart).

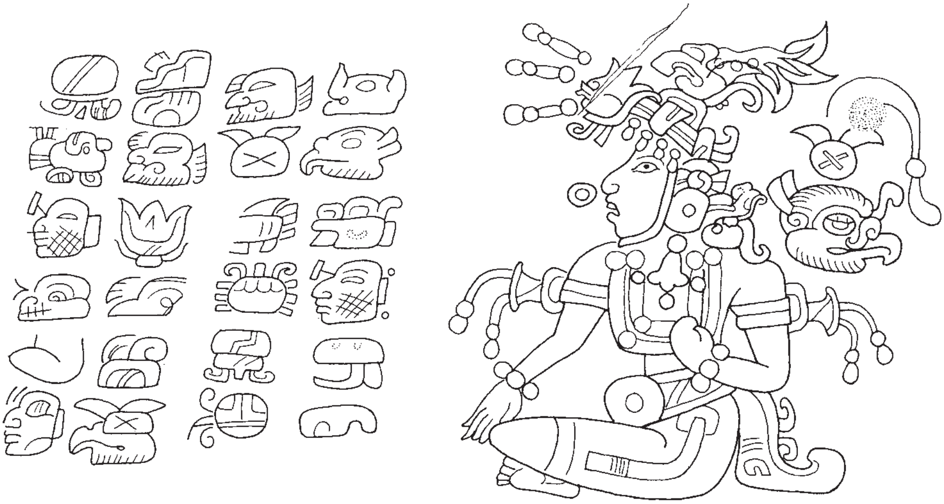
The *ajaw* term also appears on several portable objects from the Preclassic. Despite the poverty of the corpus, this is statistically significant and suggests that "lords" (they are human in all cases we can identify) were key subjects for early inscriptions (Fig. 11.8c-f).[10] The term *ajaw* (plural *ajawo'ob*) survives to this day, most notably in the Maya highlands where it refers to the *principales*, the indigenous nobility whose hereditary rights were confirmed by the Spanish authorities in the 16th century. It is not an office *per se*, but a rank distinction held by a number of noble lines. There is firm evidence from copious references in the Classic period that it had the same role in earlier times, and referred to groups of elite collaterals. One member of this group, usually a scion of the highest-ranking line, served as the paramount lord or king of any given polity (of which more below).

The best known of the early references to *ajaw* comes from a greenstone pectoral that now resides in the Dumbarton Oaks Collection in Washington, DC (Coe 1966b; Freidel and Schele 1988b; Schele and Miller 1986:119–20) (Fig. 11.9). It does not include a date, but refers to a lord or ruler by name, seemingly in the context of his accession to power. In an accompanying portrait he is shown wearing the fully panoply of Mesoamerican kingship. Jade jewels form a headdress that lies over, or incorporates, the core emblem of *ajaw* rank: a white *amate*-cloth headband—called in the texts *sak hu'un* "white paper"—which is usually decorated with one or

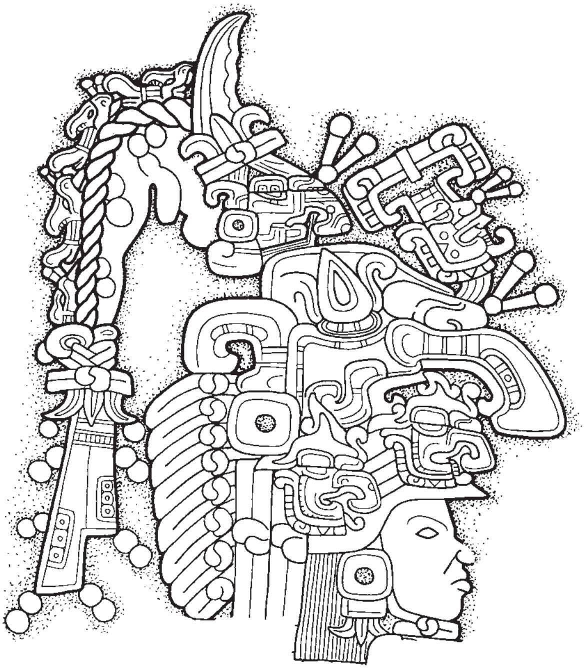


11.8. Early **AJAW** compounds: a) San Bartolo Fragment (drawing by David Stuart); b) San Bartolo Str.1 sub-1, West Wall (drawing by David Stuart); c) "Spoon" in the Jade Museum, Costa Rica (drawing by David Mora-Marín); d) Jaguar Figurine in the Yale University Art Gallery (drawing by David Mora-Marín); e) Celt in the Dumbarton Oaks Collection (drawing by David Mora-Marín); f) Slate disk in the Jade Museum, Costa Rica No.6528 (drawing by David Mora-Marín).

more red stripes.[11] The earliest versions consist of a cord tied around the temples, over the crown, and under the chin. Such bands are often embellished by one or more "Jester Gods" (Fields 1989, 1991; Freidel 1990; Taube 1998). Often taken as a mark of kingship, they can in fact be used by any holder of *ajaw* rank, at least by Late Classic times (this is especially clear in the murals of Bonampak, where a line of visitors in capes each wears a headband bearing their own Jester emblem), and are also worn by certain deities. Appearing in a variety of forms, from a simple trefoil to fully anthropomorphic being, the Jester God is a complex entity which has been linked to generative forces and the sprouting of maize—with its tri-lobed head sometimes shown as shoots or leaves. More often, however, its closest affinities seem to be with the material of paper itself, the processed bark of the fig tree, and here it is best seen as a supernatural embodiment of this material and its rich symbolic meanings. Its varieties are more clearly dis-



11.9. Dumbarton Oaks Pectoral (drawing by Linda Schele).



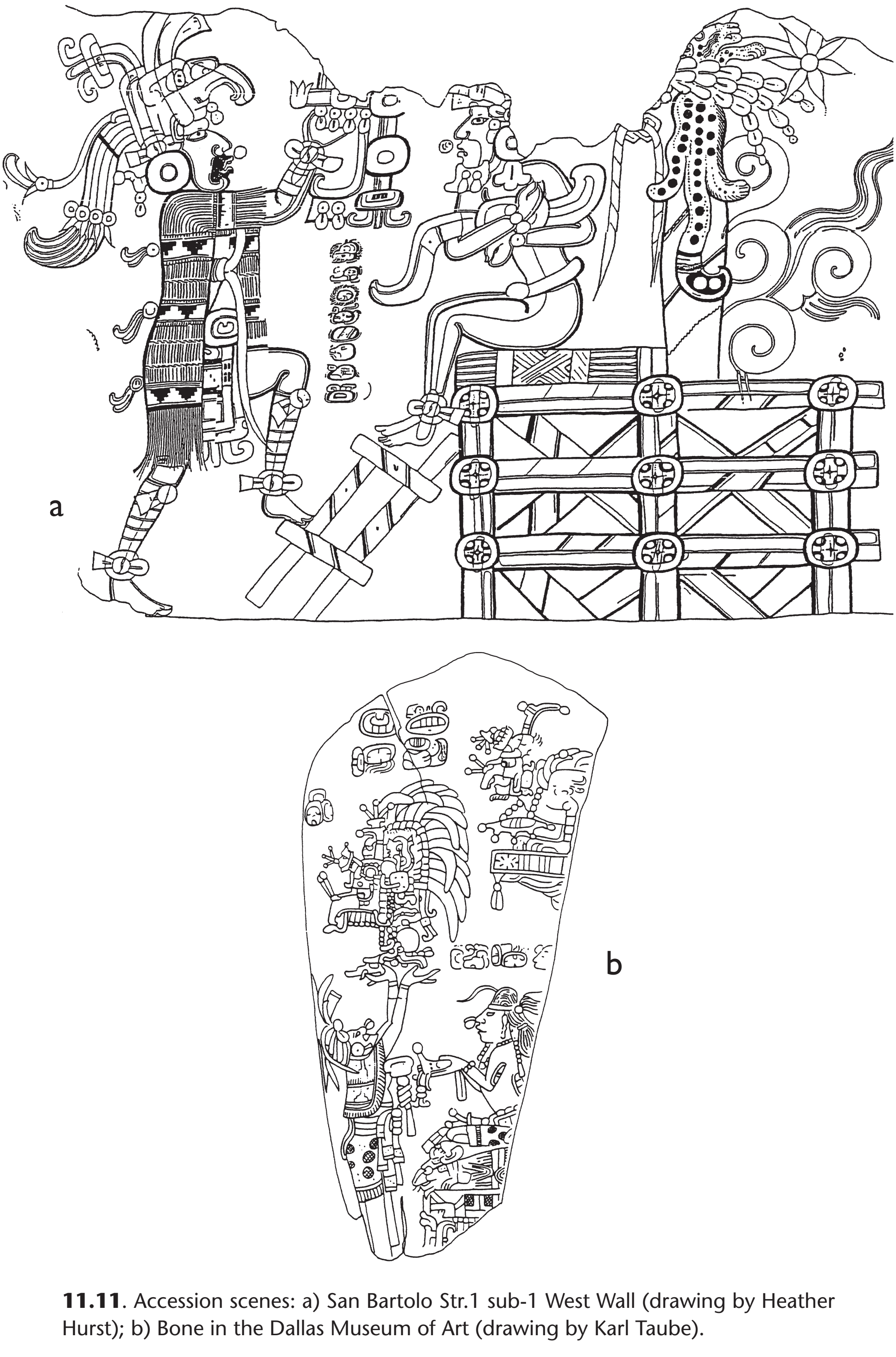
11.10. La Mojarra Stela 1 (detail) (drawing by George Stuart).

cerned in the early period, where the band over the crown regularly sports one that is fused with the Principal Bird Deity, while the band over the brow shows another merged with either a shark or the Maize God, sometimes in triple form, spaced out along the band (Hansen 1992a:146–48; Stuart 2004a; Taube 1998:454–56; Taube et al. 2010:65–66).[12] The whole assembly is of great antiquity and widely spread through Mesoamerica—an excellent example appears on La Mojarra Stela 1 (Fig. 11.10), dated to 153 CE or a little later—but it is also a recurrent feature of lordly portraits from the Olmec region or in what we perceive as Olmec style (Fields 1989).

Impressive persistence in the symbolism of kingship emerges from San Bartolo, where the mythic program surrounds an accession ceremony that matches in every important regard another produced as much as 800 years later (Fig. 11.11a, b). In both, an aged character wearing a patterned cape—usually a distinctive feature of the Underworld ruler God L—presents a headdress crown to an enthroned young lord (at San Bartolo he wears his own bird headdress). Thus, not only are the title and its particular regalia legacies from distant times, the specific rituals of investiture associated with them are equally ancient and charged with cosmic significance (Saturno 2009; Taube et al. 2010:60–69). This allows us to talk about an archetypal idea of kingship that spans the Preclassic to Classic eras and produces a formidable argument for institutional continuity.[13]

In the San Bartolo murals this is one of a pair of investiture scenes in which royal emblems are presented to lords enthroned on scaffolds. The other more clearly occurs within a narrative thread of the Maize God and directly follows his apparent spearing of the great bird. It shows the still-feathered Maize God offering a jewel in the form of the Jester God, the personification of paper called *huun*, in a form merged with the Principal Bird Deity. The recipient, seated on a jaguar skin of rulership, is evidently another form of the Maize God himself. Though without clear parallel elsewhere, this must constitute another core mythic underpinning to kingship in which the corn deity gains a special status after his successful "hunt."

Stylistically, the regalia at San Bartolo bears close comparison to that on the Dumbarton Oaks pectoral (Fig. 11.9), suggesting a rough placement for the latter to around 100 BCE. Returning to the pectoral text, it has a further contribution to make in its rendering of **CH'AB x-x ya-AK'AB li**, which evidently provides an early form of *(u)ch'ab yak'abil* "(his) creation, his darkness" (seen over the last four glyphs of the second paired column).



11.11. Accession scenes: a) San Bartolo Str.1 sub-1 West Wall (drawing by Heather Hurst); b) Bone in the Dallas Museum of Art (drawing by Karl Taube).

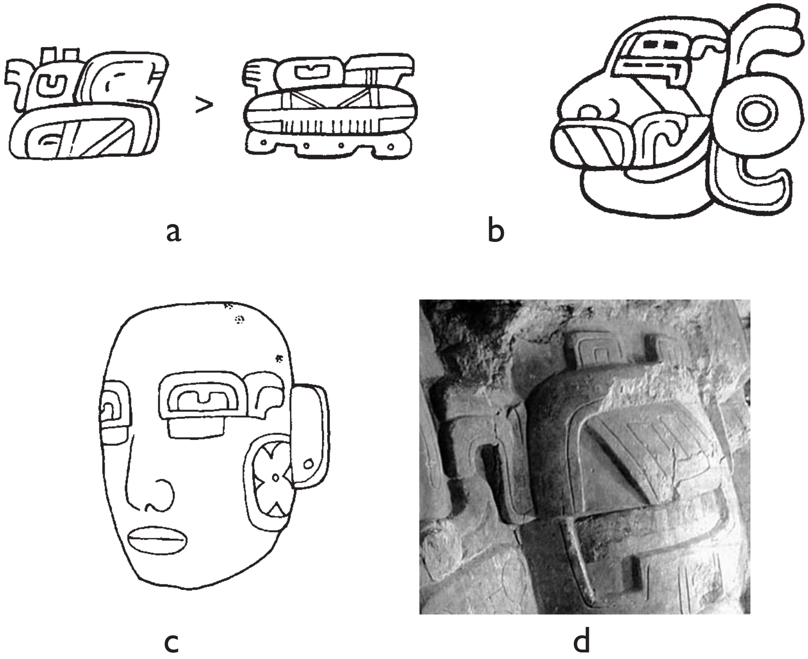
This same couplet recurs throughout the Classic as a mystical possession of kings, and it even survived into the historical period, appearing, much changed, as a magical formula in incantations from 18th-century Yucatan (Roys 1965:xv). David Stuart (2005:278) has argued that it formerly represented some special inner force or essence of the ruler, strongly linked to his procreative powers. Significantly, captured kings are said to have "no creation, no darkness," suggesting the nullifying effect that imprisonment, humiliation, and possible disfigurement had on his ability to form a conduit for divine power.

This role of kingship as a channel for supernatural power, with rulers acting as interfaces between people and gods, was first articulated in the 1980s (Freidel 1992; Freidel and Schele 1988a, 1988b; Schele 1985; Schele and Freidel 1990; Schele and Miller 1986). This view was built on interpretations of the Jester God motif, especially as it appeared on monumental sculptures such as those uncovered at Cerros, as well as scenes of "god-conjuring" and visionary experience. Additional impetus arrived from the decipherment of the God C portrait glyph and its accompanying "water group" as **K'UH** "god" (Ringle 1988; Stuart, Houston, and Robertson 1999). This term takes an adjectival role in the "emblem glyph"—the personal title held by a polity ruler—which could now be read *k'uhul* x *ajaw* "Divine/Holy Lord of X" (where "x" is the name of a polity or particular dynastic house) (Mathews 1991:24–26). Studies of greater depth and comparative reach followed and refined many aspects of the role of Maya kings in the supernatural maintenance of their realms (Houston and Stuart 1996).

Evidence for "holy lords" in the Preclassic is equivocal. The earliest certain reference appears in the form of an emblem glyph on the Hauberg Stela, a diminutive monument carrying a date in 197 CE (Schele 1985; Schele, Mathews, and Lounsbury 1990)—although some elements of its style could indicate a retrospective reference. The full "holy" form of the emblem glyph is rare during the Early Classic, suggesting that the expansion of this status began only after about 500 CE (Houston and Stuart 1996:295). This would coincide with a notable acceleration in polity formation at that time.

The **AJAW** sign has a complex graphic evolution in which its components were simplified, elaborated, and reworked over time (Lacadena 1995; Freidel, Reese-Taylor, and Mora-Marín 2002:54–61). It has been argued that the "tuft"-like element at the top left corner of some early forms is part of the brow design of deities and signals the **K'UH** term (Freidel, Reese-

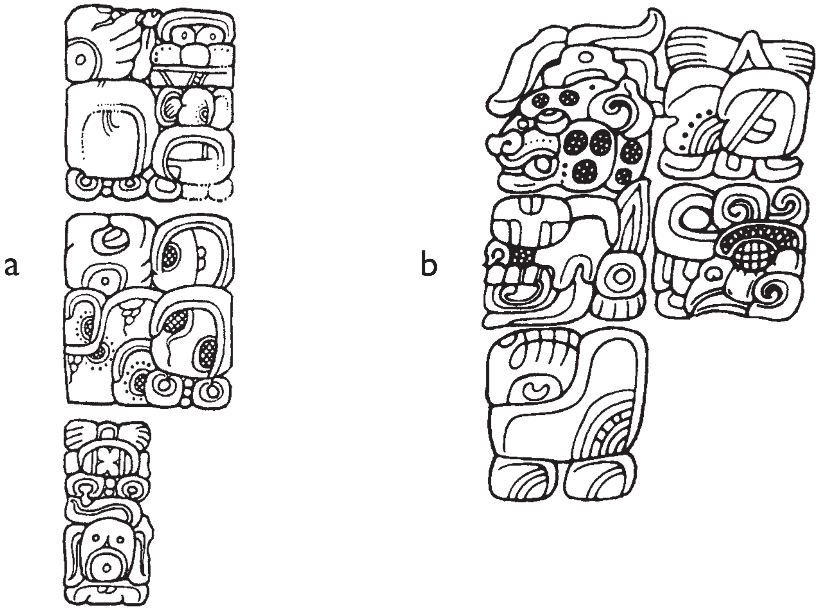
Taylor, and Mora-Marín 2002:58) (Fig. 11.12a). Interpreted as a *Spondylus* motif, in most contexts it seems to work just as easily as whiskers or hair. It is prominent in the Shiner head (Fig. 11.12b), including its unions with, or manifestations as, the sun god (Fig. 11.12c). A strikingly similar example comes from the newly excavated mask at Cival (Estrada-Belli 2006a:65–69), where the tuft appears together with the squared protrusions at top, as well as the enclosed U-shaped device (Fig. 11.12d). The picture is still indistinct, but some early compounds featuring *ajaw* seem to have included elements used in the Shiner portrait, a feature that survives into the Early Classic but then disappears. A *k'uhul ajaw* reading for this form would require further examination and a greater understanding of sign development in the initial stages of Maya writing than we presently have. One should note that during the Early Classic we see *ajaw* glyphs that also carry a "tuft" design in



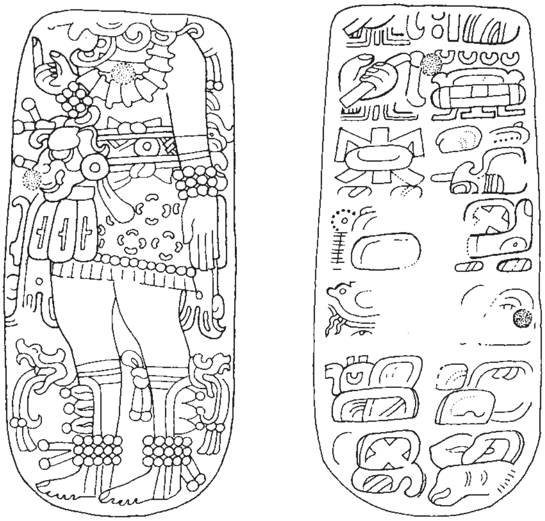
11.12. a) Early **AJAW** compounds on a Preclassic celt in the Dumbarton Oaks Collection and an Early Classic slate disk in the Jade Museum, Costa Rica No.6528 [here inset with **[PA']CHAN-na** "sky"] (drawings by David Mora-Marín); b) God C' head on San Bartolo Str.1 sub-1, North Wall (drawing by Heather Hurst); c) Greenstone figurine from Uaxactun (drawing after Linda Schele); d) Close-up of Cival Mask 2 (photograph in Estrada-Belli 2006:Fig.12a).

contexts where they must be read alone (e.g., Tikal Stela 31, J2 [Jones and Satterthwaite 1982: fig. 51]).

A further category of relevant epigraphic data comes from retrospective texts produced in the Classic era. For some time, epigraphers have been aware of limited references to dates and events from the Preclassic—some very remote and perhaps no more than legendary, others lying within the spans of the great centers such as El Mirador, and within striking distance of the "founders" of the Classic polities (Grube 2004; Grube and Martin 2001; Guenter 2005; Martin 1997; Stuart 2004a, 2004b). Some of the more notable of these appear at Copan and Pusilha, which both tie the 8.6.0.0.0 K'atun-ending of 159 CE to a character nicknamed "Foliated Ajaw" (Fig. 11.13a). He is associated with a place dubbed "Chi-Altar" on all occasions. These texts include what seem to be fully supernatural contexts painted on codex-style ceramics (Grube 2004:127–28). The Chi-Altar locale is also named in connection with dynastic founders at Yaxchilan and Tikal. Tikal mentions it again in association with the similarly named "Foliated Jaguar," the actor



11.13. a) Foliated Ajaw on Copan Stela I (Drawing by Barbara Fash); b) Foliated Jaguar on Tikal Stela 31 (drawing by William Coe).



11.14. Celt in the Dumbarton oaks Collection, Washington DC (drawing by Linda Schele).

of an event, now lost, that fell before 8.14.0.0.0 or 317 CE (Fig. 11.13b). This same name appears on both an early celt and an "ancestral" belt ornament on an unprovenienced stela (Martin 2003:6–7), and it serves the same role on a celt now at Dumbarton Oaks (Fig. 11.14). An important historical text on the back of this stone is missing its upper part, but seems to describe a K'atun anniversary, although not one that can yet be fixed in time (Schele and Miller 1986:82–83).[14] We have no further leads on the location of Chi-Altar, but its absence from contemporary events in the Classic could be consistent with the idea that it was one of the great sites abandoned at the close of the Preclassic—El Mirador being an obvious, although not at all the only, candidate.

These references, falling at the very cusp of the Preclassic-Classic transition, bring us to a vital issue: the foundation of royal dynasties—sometimes viewed as *the* defining distinction between the two eras. Peter Mathews was the first to recognize the Classic "successor count" that was used to number polity rulers in sequence and trace their line back to a founder king (Mathews 1975; Riese 1984; Stuart and Schele 1986). In some cases foundations can be placed to a particular day; in others we can do no more than make estimates based on the length of the given sequence. Current evidence suggests that the Tikal dynasty, for example, was established around 90 CE—well within the Late Preclassic—enduring in fairly robust form until at least 794 CE, and probably rather later (Martin 2003:5, n.6; Martin and Grube 2000:27). The initial date sits well with archaeological evidence of a new momentum in construction activity at the site. Other starting points can be fixed at centers such as Copan and Palenque, in 427 and 431 CE respectively, and seem to reflect the belated expansion of the Classic system to "frontier" zones.

Yet it would be wrong to think that the farthest these counts take us is the 1st century CE or later. Naranjo, for example, puts the accession of its 35th king at 546 CE. Using an average of 22.5 years per reign—a figure derived from the dated sequences at Copan and Palenque, but one that also emerges from 881 years of British royal history (Martin 1997:853–54)—the start of the Naranjo dynasty would fall around 200 BCE. This could, of course, be a fictive claim, but there are Preclassic remains at Naranjo, and we know that near-neighbor Yaxha was an especially massive early site, so the archaeological antiquity of this region is not at issue. A greater objection would be the divine attributes of the founding king, who is associated with wildly different, extraordinarily ancient time frames. Even so, we see an emerging pattern in which dynastic founders were "more than mortal," and their identities could in some sense merge with the deities whose names they took—as suggested in the Copan case mentioned earlier. It is not uncommon for ancestors of special renown to be ascribed supernatural status by their successors and to be absorbed into a "state mythology" (see Proskouriakoff 1978:116–17; Houston and Stuart 1996:296).

Extended dynastic sequences are also claimed by Altar de Sacrificios, whose 36th king was in power in 633 CE (Graham 1972: fig. 27; Houston 2007b), and Tamarindito, whose 25th king ruled at some point between 698 and 726 CE (Houston 1993:114, fig. 4.17). Following the 22.5-year reign estimate that would take us to about 154 BCE and 158–186 CE respectively. One king list appears on a group of codex-style vessels produced ca. 700 CE that, at its longest, describes nineteen rulers of the "Snake" polity, each ascribed a full *k'uhul ajaw* emblem. Despite the presence of well-known royal names, their sequencing cannot be reconciled with the monument record of Calakmul or other sites that refer to "Snake" kings, and if real, the series must largely predate them. Using the aforementioned reign-length estimate, the list should constitute about 400 years of history and thus presumably intrudes into the Preclassic era (Martin 1997). Two sherds of codex-style pottery bearing this same list have recently been excavated in the main palace group at Calakmul (Martin, n.d.-b). The Late Classic court that commissioned these vessels must have viewed these characters as legitimate precursors who validated the position of their ruler and his regime.

Before moving on, brief mention should be made of a title carried by two of our putative Preclassic kings—Ruler 2 of the Kan dynasty and Foliated Jaguar of Chi-Altar—who are named as *kaloomte'*. This seems to have been a political rank above that of *ajaw* that was held only by the most powerful kings in the Classic era (at least until an evident debasement of royal titles occurred in the Terminal Classic). It has yet to be identified on a genuinely early monument, but if its placement in the Preclassic holds true it could have much to reveal about the early political system. During the Classic, holders of the *kaloomte'* title were overlords who integrated a system of early polities into loose hegemonies (Martin and Grube 2000), and the origin of this landscape might yet lie in earlier centuries.

It is hard to draw too many conclusions from the scanty and disparate remnants of Preclassic writing we currently have, although some themes do emerge. The presence of the *ajaw* glyph shows a degree of continuity between the Preclassic and Classic, and there is enough of a supporting context—in terms of accompanying rituals and regalia—to suggest that it was the same or very similar in character. The king's possession of "creation" and "darkness" shows the persistence of concepts regarding the ruler's manipulation of spiritual power. The duties and life events of kings, the celebration of K'atun endings and K'atun anniversaries, are described for the Preclassic and prefigure such ceremonies and notions of time in the Classic. Moreover, we may also need to consider the possibility that some royal dynasties reach back into Late Preclassic times, and that whatever else the Classic phenomenon represents, it might not be safe to take the inception of royal lines as its defining feature.

DISCUSSION: RELIGION, KINGSHIP, AND THE EARLY POLITY

It goes without saying that ancient societies, like the subjects of so many scientific endeavors, can never be seen, touched, or heard directly. Ideology must be counted among the most elusive of their features. Its nature can only be discerned by inference, by chasing the shadows and reflections of notions long disappeared. Having gathered some of the most relevant sources, what can we say about the guiding ideas behind Preclassic Maya society? What connections, if any, can we draw between ideology and the character of the polities that created and employed it?

The unity of representation and the consistency of content, across large tracts of territory and through extended periods of time, both argue for a coherent and well-embedded political philosophy by Late Preclassic times. It is equally clear that this emerged from interaction with neighboring cultures, although the degree to which autochthonous developments blended with imported ones is still unclear. The most prominent mythological subject, the Principal Bird Deity, was just as familiar to the users of Isthmian script at La Mojarra as it was to the users of Maya glyphs at San Bartolo. The rulers of Izapa, which may have straddled a linguistic and cultural border, would have had little difficulty in creating a multi-ethnic rhetoric on their monuments—everyone, it seems, spoke much the same ideological language.

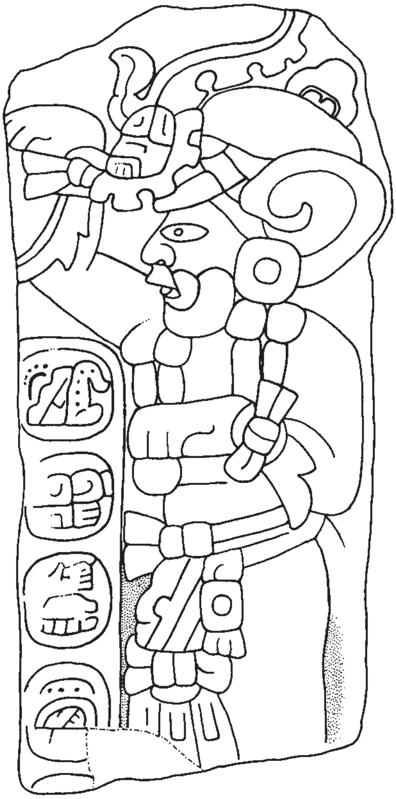
But what does such ubiquity tell us? We still need a model to explain exactly why this character and its story resonated so deeply. Much of what we know, or think we know, emerges from the dialogue between the corpus of Precolumbian images and sections of the Popol Vuh.[15] To be sure, this document is no direct and unalloyed voice from antiquity; it strongly reflects the interests and agendas of its writers and the early Colonial culture of the 16th century. Yet used as a comparative source it has proved very productive in interpreting at least some earlier artworks and texts. We may see this again where a quite separate iconographic argument concerning the Shiner indicates that the Principal Bird Deity shone brightly like polished stone—just as described for Wuqub Kaqix.

We must return at this point to the central dichotomy of the Principal Bird Deity: his role as an enemy to be vanquished on the one hand, and his co-identity with the beneficent and lordly God D on the other. Authors have negotiated this problem in different ways, but no solution easily satisfies all the contexts required. Constance Cortez advances one of the more interesting views by equating the bird to a humbled prisoner or trophy, and his display on buildings with a permanent public record of the triumph of order over chaos. The defeated bird is in this manner: "a symbol of misplaced hubris…it is not the heroic bird that is worshipped, but rather the concept and image of the bird subjugated" (1986:72–73).

However, this view does not sit well with much that we see in Classic iconography, where the Principal Bird Deity often appears at the apex of the sky or, in one of its quadripartite forms, at the summit of a cosmic tree. In these instances it evidently takes an honored role in the cosmos and forms part of the stable world-order of present time. Here we might see the bird restored to the sky after its failure to usurp solar powers during the previous creation—which is where the Popol Vuh places the defeat of Wuqub Kaqix. The contrasting personas of the Principal Bird Deity would in this way be time-specific: one is the tyrant of a previous era, the other the reformed benefactor of the current one (Joel Skidmore, pers. comm. 2005). The great façade masks of the Preclassic would represent this second stage in the cycle, with the bird returned, but contained, in its proper celestial realm. The prime agent of this reversal is, of course, Juun Ajaw—the prototype for all earthly kings.

The early emphasis on these narratives could be rooted in the particular claims to power made by the first regimes. That Maya kings saw themselves as embodiments and replications of Juun Ajaw is widely acknowledged—the association between *ajaw* "lord" and *juun ajaw* "one lord" is plain enough, while the white paper headband is one of Juun Ajaw's main diagnostic features. It follows that the adventures of Juun Ajaw and his brother serve as a model for the "good king"—who, among other things, venerates his ancestors, plays ball, is clever and courageous, and is willing to sacrifice himself (see Coe 1989b). Defeating the solar imposter counts as one of his great triumphs in making the earth fit for humankind (Tedlock 1985), and it would not be surprising if kings portrayed themselves as like-in-kind victors over the great bird. The theme continued in the Classic, although now as only one among numerous religious allusions that served to reinforce the role of kings and kingship.

This takes us to the meaning of *ajaw*-ship in early polities and the second great challenge we face in understanding Preclassic ideology: to situate the ruler within his particular constellation of powers, privileges, and responsibilities. The royal portraits of the Classic, idealized and formulaic though they are, give us at least a simulacrum of the Maya king. In the Preclassic, by contrast, the king is barely glimpsed and herein lies much of the visceral disjunction we feel with the early period. Hammond (1991a:269) has suggested that the emergence of carved monuments with portraits and texts may be epiphenomenal to the emergence of the elites they promote—their inception little more, indeed, than a new rhetorical fashion. It is true that archaeology has not as yet found much in the way of Preclassic monuments with portraits and texts with dates in the lowlands—in contrast to the highlands and Pacific coast (see Chapter 7, this volume)—but perhaps only because they are relatively few in number and deeply buried. One unprovenienced stone of unknown date, now in the Ethnografisch Museum in Antwerp, Belgium, exhibits traits of Olmec-style and ranks among the earliest Maya monuments with a hieroglyph inscription (Boot 2006; Taube 2004:46) (Fig. 11.15).



11.15. Stela in the Antwerp Museum (drawing Karl Taube).

David Freidel and Linda Schele were the first to develop an explicit historical model for the development of early Maya kingship (1988a, 1988b). In their analysis, the surge in social complexity that took place in the Late Preclassic was sparked by a redefinition of the *ajaw* office, which was required to resolve mounting social contradictions. Formerly, the term had described an egalitarian group, a brotherhood of lords with charismatic, shamanic roles in the community. But under the influence of incipient dynasts from the highlands, it was transformed into a more hierarchical order that restricted access to the supernatural world of deities and deified ancestors. Yet these new *ajaw* still retained many of their old charismatic features and failed to develop a system of institutionalized descent. As cities became more populous and harder to control, this flaw caused a structural failure, producing the wider collapse of Late Preclassic society. The success of the Classic system lay in its deep regard for the hereditary principle.

This conjecture is bold and usefully stimulates debate, but is built on sparse data. The finds at San Bartolo alone dispute the notion that sophisticated developments in the lowlands required highland input. The spread of elite culture in the Preclassic from highlands to lowlands—often characterized in the transfer of the "stela cult"—has been a long-held assumption among Mayanists. While this model may yet prove to be true, there can be no doubt that the accessibility of rich Preclassic remains in the highlands—which are often unencumbered by later, overlying settlement—has been a major influence. Only when the deepest levels of more lowland sites have been explored will we get a firm sense in which direction ideas flowed, or to what degree profited from coeval development.

A fine example of the relatively pristine conditions of some highland sites is offered by the site of El Naranjo, just outside Guatemala City. Bárbara Arroyo (2010b) has recently investigated important Middle Preclassic remains there, which include an extensive ceremonial plaza equipped with long rows of plain, but often well-fashioned, stela-altar pairs. Arroyo hypothesizes that the stones are K'atun markers and thus precursors to the same system practiced in the Classic period (pers. comm. 2006). "Plain" monuments are a feature of all periods of Maya history, but the engraving of permanent portraits and texts on what seem once to have been anonymous time-markers could be seen as the "co-opting" of age-old ceremonial behavior by a new breed of kings. Chronologically oriented rites and ceremonies remained the dominant theme and purpose of monuments throughout the Classic (Stuart 1996, 2005), with kings using them to freeze and fix in the memory their own personal performance. However, this development clearly originates within the Late Preclassic, as both highland and lowland examples attest, and cannot be seen as a distinguishing feature of Classic culture.

The body of evidence concerning dynastic foundation in the Classic period is growing steadily, and we have at least a broad idea of royal self-definition in that period. The central component was not necessarily one of direct lineal descent from the founder. Such strict rules would surely break down in the volatile world of Maya militarism, and there is evidence that the "successor count" traverses ruptures in strict patrilineal descent (Martin 2003:29). This is not to question the importance of bloodline among Classic dynasts—but the lack of proper family trees makes it hard to chart the rules of legitimate succession. The essential feature more concerns the activation of a "kingship" in a particular place and in some ritually distinct manner.

It is this divinely sanctioned event that is in some sense embodied and perpetuated in the "emblem glyph."

This view differs somewhat from those who have taken this sanctity as a personal quality of kings, whose rites of initiation make them not simply the sole intermediary between gods and humankind, but elevates them to a quasi-divine status (e.g., Schele and Miller 1986:110). The "divine king" has been a feature of the landscape since the time of Frazer, although students of kingship have increasingly moved away from the concept. Today, most instances of the "king-as-living god" are seen as misreadings (see Feeley-Harnik 1985:276; Ray 1991:22–53). Some meaning, I suspect, lies in the almost total confinement of the "holy lord" epithet within emblem glyphs. There are very few examples outside this context, and they are mostly very late—as if the idea was taken up only when kings were reaching for more exalted descriptions of themselves, a phenomenon we see with the spread of once-restricted epithets at the end of the Late Classic. Thus, no ruler is crowned a *k'uhul ajaw* on his accession; he simply becomes an *ajaw*. This might support the idea that the subject of the "holiness" is more the kingship than the king.[16] The source of this divine sanction is most likely traced not to the blessing of a general pantheon or Supreme Being, but more directly to a tutelary deity or group of such deities. It is they who witness the king's accession, serve as his patrons in war, and receive his sacrifices (see Houston and Stuart 1996).

If these features were truly restricted to the Classic Maya, then the Preclassic was "pre-dynastic" and the *ajawo'ob* of that time achieved power outside a system of lineal descent and/or without the expressed sanction of the gods represented by the *k'uhul ajaw* title. I have already noted some cause to be cautious on these fronts, but the continuity in royal rituals like those exhibited at San Bartolo give further pause to wonder about so dramatic a change in practice and meaning between two eras. It is conceivable that the Preclassic hosted more than one political model and that early manifestations of "Classic-style" kingship were initially confined to a few major centers. Continuities in governmental system between the two eras have certainly been suggested before—although the present challenge is to discern the processes involved with more clarity and certainty than hitherto possible.

An important consequence of work in the 1980s was the shift to "kingship" as an object of analysis (e.g., Schele and Miller 1986; Freidel 1992; Freidel and Schele 1988a, 1988b; Stuart 1988; Schele and Freidel 1990). This offered a global comparative framework and largely sidestepped an ongoing debate about the taxonomy of Maya polities—in short, whether one or the other should be designated a "chiefdom" or a "state," following the well-known developmental schema (Service 1962; Willey and Phillips 1958). This volume accepts the general character of Preclassic polities as "states" and does not concern itself with "neo-evolutionary" typologies of this kind (see Chapters 1 and 2, this volume). Yet we cannot entirely pass over this intellectual history, since it has had a significant impact on the perceived capabilities and organizational prowess of the early Maya polity, perhaps most notably in our view of El Mirador—the proverbial "elephant in the room" of the Preclassic.

If we are in the business of drawing inferences from disparities in the archaeological record (e.g., volumetric assessment, settlement density, and population assessments, with their implications for energetics and economic resources), then El Mirador's physical remains alone are testimony to its importance in the region (see Chapter 8, this volume). Those directing its fortunes succeeded in constructing a city larger than those built by the Maya in subsequent centuries (larger even, it is said, than the total building mass at Teotihuacan). They either motivated or compelled a labor-force from a wide area, or were sufficiently persuasive to achieve similar results with a local populace working over longer periods (or simply more intensively). However it was achieved, we are left with the paradox that the city with the biggest monumental architecture, set among a smaller and more dispersed regional population, is viewed by many scholars as developmentally inferior to the many less grandiose cities that followed it.[17] Is it facetious to wonder if the evolutionary trajectory should not be inverted, and the Classic seen as a devolved landscape inhabiting what had once been a rather grander territory? Before we go too far down this line of reasoning, it is well to remember that several other Preclassic giants lie in the forest barely touched by investigation—we still have much to learn about the basic landscape of this epoch.

FINAL REMARKS

What remains of our competing revolutionary and evolutionary paradigms? It is doubtful that descriptions of this kind can ever adequately capture the nature of a complex, multi-faceted phenomenon such as the Preclassic collapse and the subsequent development of Classic society. Each of many research questions might legitimately favor one perspective over the other and yet fail to capture the essence of the whole. There can be no question that there was a dramatic extirpation that left many large centers all but deserted—leaving many Classic societies to grow up around their ruins in the style of Medieval Romans, constantly aware of the relics of a fallen precursor. Political changes such as these were plainly revolutionary, but if we restrict the question to one of ideology, as we must, the boundary more closely resembles an evolutionary model.

The Principal Bird Deity did not disappear at the end of the Preclassic, but continued in its twin representations as a constituent of the great ruler of the sky and as a monster whose defeat was an essential prologue to humankind's appearance on earth. Its thematic dominance did decline, however, and the emphasis in imagistic and, perhaps, conceptual terms switched to God D over the course of the Classic (although this hybrid personality could be seen to be a feature of the complex from the very beginning). The regalia and rituals of lordship were consistent from at least 100 BCE onwards, and if the underlying nature and responsibilities of the *ajaw* changed, it is not visible in the iconographic record. The term *ajaw* itself was in use from at least the first part of the Late Preclassic onwards (400–200 BCE), although its specific sense in that single early example is currently unknown.

The continuity of these features across the transition to the Classic era suggests that whatever calamity sealed the fate of the great Preclassic cities, it did not lead to a wholesale rejection of their ideology. None of the major symbols of rulership were expunged, nor were the gods associated with kingly authority deserted in search of more efficacious alternatives. Classic kings remade themselves in the image of their forefathers, wore their crowns, underwent their rituals, and thought themselves imbued by the same procreative powers. The primary markers with which we isolate Classic elite culture were all developed in the Late Preclassic. More uncertain is the evidence for dynastic rule and sacred kingship in the Preclassic. Some data is suggestive, but all of it falls short of proof. Yet, even if "holy lords" were indeed restricted to the Classic, the material to hand indicates that their emergence was not heralded by a radically different inventory of rites, ceremonies, and symbols.

The fragile political structure some envisage for the Late Preclassic seems hard to reconcile with the tremendous physical achievements in constructing centers like El Mirador, as well as their substantial period of occupation. Could so massive a phenomenon as El Mirador go unremarked in the inscriptions of later centuries? Given the great interest shown by Classic kings in historical precedents and sources of ancient power, it would be surprising if so. However, history does not, in any real sense, yet exist for the Preclassic. We can only hope that the scattered clues we have, together with fortuitous discoveries in the field, will one day coalesce into some more substantial understanding. San Bartolo stands as a cautionary reminder of how one totally unexpected find can transform our understanding. It tells us so much only because we know so little.

ENDNOTES

11.1. This motif appears in the Oxtotitlan painting, although it is more clearly seen on La Venta Monument 80, where the body of the serpent is visually compared to a rope (Taube 1996b:93, fig. 13f).

11.2. This character was first identified by David Stuart, who initially called it the "God C-Sun God," before devising the "Shiner" name (1988:201–3, pers. comm. 2007). The same motif has been read *tzuk* (Freidel, Schele, and Parker 1993:140, 432), although this stems from a misunderstanding of its use in phonetic spellings (where a gourd combined with the Shiner serves as the syllable **tzu**—derived from *tzuh* "gourd"). In the Early Classic the glyph **K'UH** "god" (God C) is embellished with attributes of the Shiner (e.g., Schele 1985: fig. 4a), with rare examples recurring in the Late Classic (e.g., Stuart 1988: fig. 5.30b). In Preclassic art it appears as a façade mask in its own right—as at Cerros and Cival—and, again, this sometimes reappears in the Late Classic, for example as a balustrade at Pomona (Estrada-Belli 2006a; Saturno, Taube and Stuart 2005a:38–41;Taube 2007).

11.3. A more fragmentary adobe version is also seen at Kaminaljuyu (Guernsey 2006), while it appears on stone monuments at El Mirador, Izapa, Kaminaljuyu, Takalik Abaj, Palo Gordo, Monte Alto (Guernsey 2006; Hansen 1991, 1992a; Reese 1996; Lowe, Lee, and Martinez 1982).

11.4. The mythic model for this name is set out in more detail on the façade of the Margarita structure, an earlier version of Copan Structure 16 now buried beneath Rosalila (Bell, Canuto, and Sharer 2004: plate 2b). It features a sky-band with a large inverted sky-serpent, to which Chaak clings, holding a fiery lightning axe, also facing down. The center of the composition presents a pair of entwined birds, a quetzal and a macaw, equipped with serpent-head wings and god faces in their mouths (in this case clearly sun gods). Elsewhere, these same birds sport supernatural wings and the distinctive jewels of the Principal Bird Deity, giving good grounds to believe that they represent aspects or avatars of the great god (see Fields and Reents-Budet 2005b:217; Hellmuth 1987: fig. 31). Widely taken to be an embodied hieroglyph naming the Copan founder K'inich Yax K'uk Mo', or "Radiant First Quetzal Macaw"—whose tomb lies at the base of Structure 16—there is reason to believe that the Margarita scene portrays some myth from which the Copan king's name was derived (Martin 2006a). The same or a closely similar theme appears on the Late Preclassic stucco façade of Calakmul Structure Sub-II (Carrasco 2005; Carrasco and Colón 2005; Carrasco and Rodríquez 2003), where we also find a surrounding sky-band, falling Chaak, and two versions of the Principal Bird Deity with deity heads in its mouths.

11.5. The latter noted in Hansen 1992a:138.

11.6. The remains of the putative claw are small, but match the yellow color of the bird deity, with more similarity to the narrow feet of Individuals 2 and 4 rather than to the heavily taloned Individuals 8 and 10, with the greatest resemblance to those of the "dead" bird (Taube et al. 2010: fig. 7, fig. 12).

11.7. To choose a few among many examples, we see the Principal Bird Deity as a headdress on Tikal Stela 31 (Jones and Satterthwaite 1982: fig. 51c), Quirigua Monument 26 (Jones 1983), and Caracol Stela 16 (Beetz and Satterthwaite 1981: fig. 15a).

11.8. A fine depiction of God D in his dual personality of the elderly God N and the Principal Bird Deity appears on the lid of an Early Classic blackware vessel (see Hellmuth 1987; Fields and Reents-Budet 2005:147). The old man sits on a motif that resembles a flower or sun sign.

11.9. Judgments here are necessarily subjective. I have chosen to exclude a number of well-known early texts that appear to come from the Protoclassic—a nebulous period that more properly belongs to the initial stages of the Early Classic than the last throes of the Late Preclassic.

11.10. The term also appears in some supernatural names and titles during the Classic period (such as the name of the Hero Twin *Juun Ajaw* or the Sun God *K'inich Ajaw*).

11.11. There is also an *ik hu'un* "black paper" band that serves a similar function but may have a different significance (Stuart 2004a).

11.12. The first of these is probably related to those cases where the bird wears a trefoil diadem, as on the upper façades at Cerros.

11.13. Proskouriakoff (1960:455) first linked "niche" scenes to accession ceremonies on the monuments of Piedras Negras—although their distinctive feature is really a "cosmic throne" that features the celestial starry crocodile and, at times, a ladder ascending its stepped dias. A debate has since arisen as to whether these scenes depict royal accessions or instead calendrical period-ending ceremonies. Piedras Negras Stela 6 presents this theme in conjunction with a text recording the "first" period-ending event for Ruler 3 (Stuart and Graham 2003:36), while Stela 11 shows the enthroned ruler holding an incense bag inscribed with the day of the appropriate period ending commemorated in its text (see Taube et al. 2010: fig. 40a, b). On the other hand, Piedras Negras Stela 33 (Maler 1901: plate 26) is directly acccompanied by a text dated to the inauguration of Ruler 2, which appears to caption the scene, unlike a much smaller text, placed lower in the scene, that records the period ending.

11.14. The phrase concerned seems to anticipate an anniversary with **TZUTZ-ma U?**-"K'atun" *tzutz-[j]-oom u-?* "he will end his K'atun" (see Houston 2004:305). The Dumbarton Oaks celt also features an early *ajaw* sign with a "God C variant" brow motif. In a standard formula the polity or dynasty name should precede it, but here it is badly effaced. The visible portion is not inconsistent with the Chi-Altar compound, but we can go no further than that. A better candidate for the Chi-Altar term on a portable jade object comes from the jade figurine now in the Yale University Art Gallery (Coe 1973b:25). Here at A7-B7 we see a hand and an indented sign that vaguely resembles the "altar" glyph. David Mora-Marín's rendering shows a probable **ji** sign that functions as a complement to the "altar" glyph elsewhere (Mora-Marín 2001: fig. 23).

11.15. There are other, Classic-era images that depict the battle between Juun Ajaw/Hunahpu and the great bird (Stone 1983; Coe 1989b; Guernsey 2006).

11.16. Maya rulers certainly underwent transforming rites that set them apart from their people and invested them with special powers and responsibilities. Yet this is some distance short of the "living god" conjectured by some authors.

11.17. It has been interpreted as the capital of a "state" by some (e.g., Matheny 1986a; Sharer 1992) and as a "chiefdom" by others (e.g., Blanton, Feinman, Kowalewski and Peregrine 1996; Marcus 1983b, 2003).

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